

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

**TQ DELTA, LLC,
Plaintiff,**

V.

**COMMScope Holding Company, Inc., Commscope Inc., Arris US Holdings, Inc., Arris Solutions, Inc., Arris Technology, Inc., and Arris Enterprises, LLC,
Defendants.**

[illegible]

JURY TRIAL DEMANDED

Civil Action 2:21-cv-310-JRG

PLAINTIFF TQ DELTA, LLC'S NOTICE OF APPEAL

Notice is hereby given that Plaintiff, TQ Delta, LLC, hereby appeals to the United States Court of Appeals for the Federal Circuit.

Plaintiff appeals the Final Judgment, entered on May 3, 2023 (Dkt. 513), and all orders, rulings, findings, and/or conclusions of any kind whatsoever decided adversely to TQ Delta in this case, including but not limited to, the Court's orders denying Plaintiff's Motion for Judgment as a Matter of Law and for a New Trial, entered on August 25, 2023 (Dkt. 566); the Court's Sealed Order denying Plaintiff's Motions for a New Trial, entered on September 6, 2023 (Dkt. 567; jointly redacted public version at Dkt. 568); the Court's Sealed Order denying Plaintiff's Renewed Motion for Judgment as a Matter of Law, entered on February 15, 2024 (Dkt. 570; jointly redacted public version at Dkt. 572); the Court's Order on Pretrial Motions and Motions *in Limine*, entered on March 9, 2023 (Dkt. 496), the Court's Claim Construction Memorandum and Order, entered on June 8, 2022 (Dkt. 169); and all other orders, rulings, findings, and/or decisions decided adversely

to TQ Delta, whether oral or written, interlocutory thereto, incorporated within, or underlying them, whether pretrial or during trial.

As such, pursuant to Federal Rules of Appellate Procedure 3 and 4(a)(1)(A), Plaintiff appeals from the Final Judgment (Dkt. 513) to challenge all orders, rulings, findings, and/or conclusions of any kind whatsoever decided adversely to TQ Delta, including the Court's order denying Plaintiff's Motions for Judgment as a Matter of Law and for a New Trial, the Court's order denying Plaintiff's Motions for a New Trial, the Court's Order on Pretrial Motions and Motions *in Limine*, the Court's Claim Construction Memorandum and Order, the Court's order denying Plaintiff's Renewed Motion for Judgment as a Matter of Law, and all other orders, rulings, findings, and/or decisions decided adversely to TQ Delta, whether oral or written, interlocutory thereto, incorporated within, or underlying them, whether pretrial or during trial.

This appeal is made pursuant to 28 U.S.C. §§1291 & 1295(a)(1).

Included herewith is payment of the filing fee (\$5.00) and the docketing fee (\$600.00) as required by 28 U.S.C. § 1917, Federal Circuit Rule 52(a)(2), Federal Rule of Appellate Procedure 3(e), and the U.S. District Court for the Eastern District of Texas fee schedule.

Dated: March 15, 2024

Respectfully submitted,

By: /s/ Peter J. McAndrews

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CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing document is being filed electronically in compliance with Local Rule CV-5(a). As such, this document is being served this March 15, 2024, on all counsel of record, each of whom is deemed to have consented to electronic service. L.R. CV-5(a)(3)(A). Pursuant to Federal Rule of Civil Procedure 5(d) and Local Rule CV-5(d) and (e), any counsel of record not deemed to have consented to electronic service will be served with a true and correct copy of the foregoing by email on this 15th day of March, 2024.

/s/ Peter J. McAndrews
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U.S. DISTRICT COURT
EASTERN DISTRICT OF
TEXAS

By: Nakisha Love **U.S. District Court**
Eastern District of TEXAS [LIVE] (Marshall)
CIVIL DOCKET FOR CASE #: 2:21-cv-00310-JRG
Internal Use Only

TQ Delta, LLC v. CommScope Holding Company, Inc. et al
Assigned to: District Judge Rodney Gilstrap
Cause: 35:271 Patent Infringement

Date Filed: 08/13/2021
Date Terminated: 05/03/2023
Jury Demand: Both
Nature of Suit: 830 Patent
Jurisdiction: Federal Question

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Defendant

ARRIS Technology, Inc.

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V.

Consol Defendant**Nokia Corporation***Consolidated Civil Action 2:21cv309**TERMINATED: 12/08/2022*represented by **Matthew Scott Stevens**

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Consol Defendant

Nokia of America Corporation

Consolidated Civil Action 2:21cv309

TERMINATED: 12/08/2022

represented by **Matthew Scott Stevens**

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Consol Defendant

Nokia Solutions

Consolidated Civil Action 2:21cv309

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Counter Claimant
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Date Filed	#	Docket Text
08/13/2021	<u>1</u>	COMPLAINT <i>Original Complaint for Patent Infringement</i> against ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Filing fee \$ 402 receipt number 0540-8535888.), filed by TQ Delta, LLC. (Attachments: # <u>1</u> Exhibit 1 - 881 Patent, # <u>2</u> Exhibit 2 - 686 Patent, # <u>3</u> Exhibit 3 - 882 Patent, # <u>4</u> Exhibit 4 - 008 Patent, # <u>5</u> Exhibit 5 - 048 Patent, # <u>6</u> Exhibit 6 - 835 Patent, # <u>7</u> Exhibit 7 - 411 Patent, # <u>8</u> Exhibit 8 - 988 Patent, # <u>9</u> Exhibit 9 - 348 Patent, # <u>10</u> Exhibit 10 - 354 Patent, # <u>11</u> Exhibit 11 - 055 Patent, # <u>12</u> Exhibit 12 - 112 Patent, # <u>13</u> Exhibit 13 - 809 Patent, # <u>14</u> Civil Cover Sheet)(Davis, William) (Entered: 08/13/2021)
08/13/2021	<u>2</u>	CORPORATE DISCLOSURE STATEMENT filed by TQ Delta, LLC (Davis, William) (Entered: 08/13/2021)
08/13/2021	<u>3</u>	Notice of Filing of Patent/Trademark Form (AO 120). AO 120 mailed to the Director of the U.S. Patent and Trademark Office. (Davis, William) (Entered: 08/13/2021)
08/13/2021	<u>4</u>	NOTICE of Attorney Appearance by Christian J Hurt on behalf of TQ Delta, LLC (Hurt, Christian) (Entered: 08/13/2021)
08/13/2021	<u>5</u>	NOTICE of Attorney Appearance by Rudolph Fink, IV on behalf of TQ Delta, LLC (Fink, Rudolph) (Entered: 08/13/2021)
08/13/2021		Case Assigned to District Judge Rodney Gilstrap. (nkl,) (Entered: 08/13/2021)
08/13/2021		In accordance with the provisions of 28 USC Section 636(c), you are hereby notified that a U.S. Magistrate Judge of this district court is available to conduct any or all proceedings in this case including a jury or non-jury trial and to order the entry of a final judgment. The form <u>Consent to Proceed Before Magistrate Judge</u> is available on our website. All signed consent forms, excluding pro se parties, should be filed electronically using the event <i>Notice Regarding Consent to Proceed Before Magistrate Judge</i> . (nkl,) (Entered: 08/13/2021)
08/16/2021	<u>6</u>	SUMMONS Issued as to ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # <u>1</u> Summons(es), # <u>2</u> Summons(es), # <u>3</u> Summons(es), # <u>4</u> Summons(es), # <u>5</u> Summons(es))(ch,) (Entered: 08/16/2021)
08/19/2021	<u>7</u>	SUMMONS Returned Executed by TQ Delta, LLC. Commscope Inc. served on 8/17/2021, answer due 9/7/2021. (Davis, William) (Entered: 08/19/2021)


08/19/2021	<u>8</u>	SUMMONS Returned Executed by TQ Delta, LLC. CommScope Holding Company, Inc. served on 8/17/2021, answer due 9/7/2021. (Davis, William) (Entered: 08/19/2021)
08/19/2021	<u>9</u>	SUMMONS Returned Executed by TQ Delta, LLC. ARRIS Solutions, Inc. served on 8/17/2021, answer due 9/7/2021. (Davis, William) (Entered: 08/19/2021)
08/19/2021	<u>10</u>	SUMMONS Returned Executed by TQ Delta, LLC. ARRIS Technology, Inc. served on 8/17/2021, answer due 9/7/2021. (Davis, William) (Entered: 08/19/2021)
08/19/2021	<u>11</u>	SUMMONS Returned Executed by TQ Delta, LLC. ARRIS US Holdings, Inc. served on 8/17/2021, answer due 9/7/2021. (Davis, William) (Entered: 08/19/2021)
08/19/2021	<u>12</u>	SUMMONS Returned Executed by TQ Delta, LLC. ARRIS Enterprises, LLC served on 8/19/2021, answer due 9/9/2021. (Davis, William) (Entered: 08/19/2021)
09/03/2021	<u>13</u>	Defendant's Unopposed First Application for Extension of Time to Answer Complaint re ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Findlay, Eric) (Entered: 09/03/2021)
09/03/2021		Defendant's Unopposed First Application for Extension of Time to Answer Complaint is granted pursuant to Local Rule CV-12 for ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. 30 Days Granted for Deadline Extension.(klc,) Modified on 9/7/2021 (klc,). (Entered: 09/03/2021)
09/16/2021	<u>14</u>	SUMMONS Issued as to ARRIS Global Ltd., ARRIS International Limited. (Attachments: # <u>1</u> Summons(es))(ch,) (Entered: 09/16/2021)
09/24/2021	<u>15</u>	NOTICE of Voluntary Dismissal by TQ Delta, LLC (Attachments: # <u>1</u> Text of Proposed Order)(Hurt, Christian) (Entered: 09/24/2021)
10/01/2021	<u>16</u>	Defendant's Unopposed Second Application for Extension of Time to Answer Complaint re ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Findlay, Eric) (Entered: 10/01/2021)
10/01/2021		Defendant's Unopposed FIRST Application for Extension of Time to Answer Complaint is granted pursuant to Local Rule CV-12 for ARRIS US Holdings, Inc. to 10/22/2021; Commscope Inc. to 10/22/2021; ARRIS Solutions, Inc. to 10/22/2021; ARRIS Enterprises, LLC to 10/22/2021; CommScope Holding Company, Inc. to 10/22/2021; ARRIS Technology, Inc. to 10/22/2021. 15 Days Granted for Deadline Extension.(ch,) (Entered: 10/01/2021)
10/22/2021	<u>17</u>	<i>Defendants'</i> ANSWER to <u>1</u> Complaint,,, <i>Affirmative Defenses and</i> , COUNTERCLAIM against TQ Delta, LLC by ARRIS US Holdings, Inc., Commscope Inc., ARRIS Solutions, Inc., ARRIS Enterprises, LLC, CommScope Holding Company, Inc., ARRIS Technology, Inc..(Findlay, Eric) (Entered: 10/22/2021)
10/22/2021	<u>18</u>	NOTICE of Attorney Appearance - Pro Hac Vice by Christie Larochelle on behalf of ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS




		Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. Filing fee \$ 100, receipt number 0540-8637638. (Larochelle, Christie) (Entered: 10/22/2021)
10/22/2021		In accordance with the provisions of 28 USC Section 636(c), you are hereby notified that a U.S. Magistrate Judge of this district court is available to conduct any or all proceedings in this case including a jury or non-jury trial and to order the entry of a final judgment. The form Consent to Proceed Before Magistrate Judge is available on our website. All signed consent forms, excluding pro se parties, should be filed electronically using the event <i>Notice Regarding Consent to Proceed Before Magistrate Judge</i> . (ch,) (Entered: 10/22/2021)
10/22/2021	19	NOTICE of Attorney Appearance by Andrew S Ong on behalf of ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Ong, Andrew) (Entered: 10/22/2021)
10/22/2021	20	NOTICE of Attorney Appearance by Rachel Walsh on behalf of ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Walsh, Rachel) (Entered: 10/22/2021)
10/22/2021	21	NOTICE of Attorney Appearance by Douglas J Kline on behalf of ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Kline, Douglas) (Entered: 10/22/2021)
10/22/2021	22	NOTICE of Attorney Appearance by Brett M Schuman on behalf of ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Schuman, Brett) (Entered: 10/22/2021)
10/22/2021	23	CONSOLIDATION ORDER - The above-captioned case is hereby ORDERED to be CONSOLIDATED for all pretrial issues with the LEAD CASE, Case No. 2:21-cv-00310. All parties are instructed to file any future filings in the LEAD CASE. Individual cases remain active for trial.. Signed by District Judge Rodney Gilstrap on 10/22/2021. (nkl,) (Entered: 10/22/2021)
10/25/2021	24	NOTICE of Readiness for Scheduling Conference by TQ Delta, LLC (Davis, William) (Entered: 10/25/2021)
10/25/2021	25	NOTICE of Attorney Appearance by John Daniel Haynes on behalf of Nokia of America Corporation (Haynes, John) (Entered: 10/25/2021)
10/25/2021	26	NOTICE of Attorney Appearance by Karlee Wroblewski on behalf of Nokia of America Corporation (Wroblewski, Karlee) (Entered: 10/25/2021)
10/25/2021	27	ORDER - Scheduling Conference set for 11/18/2021 09:00 AM before District Judge Rodney Gilstrap. Signed by District Judge Rodney Gilstrap on 10/25/2021. (nkl,) (Entered: 10/25/2021)
11/01/2021	28	Unopposed MOTION for Extension of Time to File Response/Reply <i>TQ Delta, LLCs Unopposed Motion for Extension of Time to Respond to Defendant Nokia of America Corp.s Motion to Dismiss Under Rule 12(b)(6) for Failure to Plead Compliance with the Actual Notice and Marking Requirements of 35 U.S.C. § 287(a) [Filed as Dkt No. 20 in Member Case</i>

		2:21-cv-309-JRG] by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Hurt, Christian) (Entered: 11/01/2021)
11/04/2021	29	NOTICE of Attorney Appearance by Nicholas Christopher Marais on behalf of Nokia of America Corporation (Marais, Nicholas) (Entered: 11/04/2021)
11/05/2021	30	ORDER granting 28 Motion for Extension of Time to File Response/Reply. Signed by District Judge Rodney Gilstrap on 11/05/2021. (nkl,) (Entered: 11/05/2021)
11/08/2021	31	NOTICE of Attorney Appearance by Ty William Wilson on behalf of TQ Delta, LLC (Wilson, Ty) (Entered: 11/08/2021)
11/11/2021	32	Opposed MOTION to Change Venue <i>to the District of Delaware</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Declaration of James D. Shead in Support of Defendants' Opposed Motion to Transfer Venue to the District of Delaware, # 2 Declaration of Andrew S. Ong in Support of Defendants' Opposed Motion to Transfer Venue to the District of Delaware, # 3 Exhibit Ex. 1 to Ong Declaration, # 4 Exhibit Ex. 2 to Ong Declaration, # 5 Exhibit Ex. 3 to Ong Declaration, # 6 Exhibit Ex. 4 to Ong Declaration, # 7 Exhibit Ex. 5 to Ong Declaration, # 8 Exhibit Ex. 6 to Ong Declaration, # 9 Exhibit Ex. 7 to Ong Declaration, # 10 Exhibit Ex. 8 to Ong Declaration, # 11 Exhibit Ex. 9 to Ong Declaration, # 12 Exhibit Ex. 10 to Ong Declaration, # 13 Exhibit Ex. 11 to Ong Declaration, # 14 Exhibit Ex. 12 to Ong Declaration, # 15 Exhibit Ex. 13 to Ong Declaration, # 16 Exhibit Ex. 14 to Ong Declaration, # 17 Exhibit Ex. 15 to Ong Declaration, # 18 Exhibit Ex. 16 to Ong Declaration, # 19 Exhibit Ex. 17 to Ong Declaration, # 20 Text of Proposed Order)(Findlay, Eric) (Entered: 11/11/2021)
11/12/2021	33	Unopposed MOTION To File Under Seal by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Hurt, Christian) (Entered: 11/12/2021)
11/12/2021	 34	SEALED RESPONSE - TQ Delta, LLC's Response to Defendant Nokia of America Corporations Motion to Dismiss Under Rule 12(b)(6) for Failure to Plead Compliance with the Actual Notice and Marking Requirements of 35 U.S.C. § 287(a) (filed as Dkt No. 20 in Member Case 2:21-CV-309-JRG) by TQ Delta, LLC. (Attachments: # 1 Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3, # 4 Exhibit 4, # 5 Exhibit 5, # 6 Exhibit 6, # 7 Exhibit 7, # 8 Exhibit 8, # 9 Text of Proposed Order)(Hurt, Christian) (Entered: 11/12/2021)
11/12/2021	35	ANSWER to 17 Answer to Complaint,, Counterclaim, <i>Plaintiff/Counter-Defendant TQ Delta LLC's Answer to the CommScope Defendants' Counterclaims</i> by TQ Delta, LLC.(Hurt, Christian) (Entered: 11/12/2021)
11/16/2021	36	REDACTION to 34 Response to Non-Motion,, <i>Plaintiff TQ Delta, LLC's Response to Defendant Nokia of America Corporation's Motion to Dismiss Under Rule 12(b)(6) For Failure to Plead Compliance with the Actual Notice and Marking Requirements of 35 U.S.C. 287(a) [Filed as Dkt. No. 20 in Member Case 2:21-cv-309-JRG]</i> by TQ Delta, LLC. (Attachments: # 1 Exhibit 1-7 - Placeholder - Filed Under Seal in their Entirety, # 2 Exhibit 8, # 3 Text of Proposed Order)(Hurt, Christian) (Entered: 11/16/2021)
11/17/2021	37	NOTICE of Attorney Appearance by Samuel Bragg on behalf of Nokia of America Corporation (Bragg, Samuel) (Entered: 11/17/2021)



11/18/2021	38	Unopposed MOTION for Extension of Time to File Response/Reply as to 32 Opposed MOTION to Change Venue <i>to the District of Delaware</i> by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 11/18/2021)
11/18/2021		Minute Entry for proceedings held before District Judge Rodney Gilstrap: Scheduling Conference held on 11/18/2021. Counsel for the parties appeared. Court asked whether they consented to trial before the U.S. Magistrate Judge. Court then gave the parties Claim Construction and Jury Selection dates. (Court Reporter Shawn McRoberts, RMR, CRR) (aeb) (Entered: 11/18/2021)
11/19/2021	39	RESPONSE to <i>Defendant Nokia of America's Reply in Support of Its Motion to Dismiss Under Rule 12(b)(6) for Failure to Plead Compliance with the Actual Notice and Marking Requirement of 35 USC § 287(a)</i> (motion filed as Dkt No 20 in Member Case 2:21-CV-0309-JRG; Plaintiff's Response filed as Dkt No 34 in Lead Case 2:21-CV-0310-JRG) filed by Nokia of America Corporation. (Stevens, Matthew) (Entered: 11/19/2021)
11/22/2021	40	NOTICE of Attorney Appearance by Matthew Scott Stevens on behalf of Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation (Stevens, Matthew) (Entered: 11/22/2021)
11/22/2021	41	NOTICE of Attorney Appearance by John Daniel Haynes on behalf of Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation (Haynes, John) (Entered: 11/22/2021)
11/22/2021	42	NOTICE of Attorney Appearance by Karlee Wroblewski on behalf of Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation (Wroblewski, Karlee) (Entered: 11/22/2021)
11/22/2021	43	NOTICE of Attorney Appearance by Nicholas Christopher Marais on behalf of Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation (Marais, Nicholas) (Entered: 11/22/2021)
11/22/2021	44	MOTION to Dismiss <i>Under Rule 12(b)(6) for Failure to Plead Compliance with the Actual Notice and Marking Requirements of 35 U.S.C. § 287(a)</i> by Networks Oy, Nokia Corporation, Nokia Solutions. (Attachments: # 1 Exhibit Stipulation of Dismissal in TQ Delta, LLC v. ZyXEL Comms., # 2 Exhibit Defendant ADTRAN, Inc.s Licensing Proffer in TQ Delta, LLC v. ADTRAN, # 3 Text of Proposed Order)(Stevens, Matthew) (Entered: 11/22/2021)
11/26/2021	 45	Sealed Sur-Reply - Plaintiff TQ Delta, LLCs Sur-Reply to 39 Defendant Nokia of Americas Reply in Support of its Motion to Dismiss Under Rule 12(B)(6) For Failure to Plead Compliance With the Actual Notice and Marking Requirements Of 35 U.S.C. § 287(A). (Davis, William) (Entered: 11/26/2021)
11/29/2021	46	FILED IN ERROR ATTORNEY Unopposed MOTION Plaintiff TQ Delta, LLC's Unopposed Motion for Leave to Propound Expedited Venue Discovery re 32 Opposed MOTION to Change Venue <i>to the District of Delaware</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Wilson Declaration, # 2 Exhibit A - CommScope Job Listings, # 3 Exhibit B - CommScope Employees (Engineering), # 4 Exhibit C - CommScope Employees (Services), # 5 Exhibit D CommScope Facebook Profile, # 6 Exhibit E - CommScope Form 10-K, # 7 Text of Proposed Order) (Davis, William) Modified on 11/29/2021 (nkl,). (Entered: 11/29/2021)

11/29/2021	47	<p>FILED IN ERROR PER ATTORNEY</p> <p>Unopposed MOTION for Extension of Time to File Response/Reply as to 38 Unopposed MOTION for Extension of Time to File Response/Reply as to 32 Opposed MOTION to Change Venue <i>to the District of Delaware TQ Delta's Second Unopposed Motion for Extension of Time to Respond to the CommScope Defendants' Motion to Transfer Venue to the District of Delaware</i> by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Davis, William) Modified on 11/29/2021 (nkl,). (Entered: 11/29/2021)</p>
11/29/2021		<p>***FILED IN ERROR PER ATTORNEY. Document # 46, Unopposed MOTION Plaintiff TQ Delta, LLC's Unopposed Motion for Leave to Propound Expedited Venue Discovery. PLEASE IGNORE.***</p> <p>(nkl,) (Entered: 11/29/2021)</p>
11/29/2021		<p>***FILED IN ERROR PER ATTORNEY. Document # 47, Unopposed MOTION for Extension of Time to File Response/Reply. PLEASE IGNORE.***</p> <p>(nkl,) (Entered: 11/29/2021)</p>
11/29/2021	48	<p>Unopposed MOTION Plaintiff TQ Delta, LLC's Unopposed Motion for Leave to Propound Expedited Venue Discovery re 32 Opposed MOTION to Change Venue <i>to the District of Delaware</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Wilson Declaration, # 2 Exhibit A - CommScope Job Listings, # 3 Exhibit B - CommScope Employees (Engineering), # 4 Exhibit C - CommScope Employees (Services), # 5 Exhibit D CommScope Facebook Profile, # 6 Exhibit E - CommScope Form 10-K, # 7 Text of Proposed Order) (Davis, William) (Entered: 11/29/2021)</p>
11/29/2021	49	<p>Unopposed MOTION for Extension of Time to File Response/Reply as to 32 Opposed MOTION to Change Venue <i>to the District of Delaware</i>, 38 Unopposed MOTION for Extension of Time to File Response/Reply as to 32 Opposed MOTION to Change Venue <i>to the District of Delaware TQ Delta's Second Unopposed Motion for Extension of Time to Respond to the CommScope Defendants' Motion to Transfer Venue to the District of Delaware</i> by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 11/29/2021)</p>
11/30/2021	50	<p>REDACTION to 45 Sealed Document, <i>Plaintiff TQ Delta, LLCs Sur-Reply to Defendant Nokia of Americas Reply in Support of its Motion to Dismiss Under Rule 12(B)(6) for Failure to Plead Compliance With the Actual Notice and Marking Requirements of 35 U.S.C. § 287(a)</i> by TQ Delta, LLC. (Davis, William) (Entered: 11/30/2021)</p>
12/02/2021	51	<p>Joint MOTION for Extension of Time to File <i>Joint Motion for Extension of Time to Submit the Parties' Proposed Discovery Order and Proposed Docket Control Order</i> by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order) (Davis, William) (Entered: 12/02/2021)</p>
12/06/2021	52	<p>RESPONSE in Opposition re 44 MOTION to Dismiss <i>Under Rule 12(b)(6) for Failure to Plead Compliance with the Actual Notice and Marking Requirements of 35 U.S.C. § 287(a) filed by TQ Delta, LLC.</i> (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 12/06/2021)</p>


12/09/2021	53	Joint MOTION for Entry of Agreed Docket Control Order by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 12/09/2021)
12/09/2021	54	Joint MOTION for Entry of Agreed Discovery Order by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 12/09/2021)
12/09/2021	55	Joint MOTION for Entry of Agreed Protective Order by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 12/09/2021)
12/09/2021	56	NOTICE of Discovery Disclosure by TQ Delta, LLC <i>re Initial and Additional Disclosures</i> (Davis, William) (Entered: 12/09/2021)
12/10/2021	57	NOTICE of Discovery Disclosure by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation <i>re Initial and Additional Disclosures</i> (Stevens, Matthew) (Entered: 12/10/2021)
12/10/2021	58	NOTICE of Discovery Disclosure by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. <i>of Compliance regarding Initial and Additional Disclosures</i> (Findlay, Eric) (Entered: 12/10/2021)
12/15/2021	59	NOTICE of Attorney Appearance by Edward Chin on behalf of TQ Delta, LLC (Chin, Edward) (Entered: 12/15/2021)
12/17/2021	60	DISCOVERY ORDER. Signed by District Judge Rodney Gilstrap on 12/17/2021. (bjc,) (Entered: 12/17/2021)
12/17/2021	61	PROTECTIVE ORDER. Signed by District Judge Rodney Gilstrap on 12/17/2021. (bjc,) (Entered: 12/17/2021)
12/17/2021		(Court only) ***Motions terminated: 54 Joint MOTION for Entry of Agreed Discovery Order filed by TQ Delta, LLC. (bjc,) (Entered: 12/17/2021)
12/17/2021	62	DOCKET CONTROL ORDER - Joinder of Parties due by 1/30/2022. Amended Pleadings due by 3/18/2022. Deadline to complete fact discovery is 8/15/2022. Motions in limine due by 11/7/2022. Joint Proposed Pretrial Order due by 11/21/2022. Joint Proposed Jury instructions due by 11/21/2022. Pretrial Conference set for 11/28/2022 at 09:00 AM before District Judge Rodney Gilstrap. Jury Selection set for 1/2/2023 at 09:00AM before District Judge Rodney Gilstrap. Signed by District Judge Rodney Gilstrap on 12/17/21. (hma) (Entered: 12/20/2021)
12/20/2021		Markman Hearing set for 6/3/2022 09:00 AM before District Judge Rodney Gilstrap. (klc,) (Entered: 12/20/2021)
12/22/2021	63	ORDER granting in part and denying in part 38 Motion for Extension of Time to File Response/Reply ; granting in part and denying in part 48 Motion for Leave to Propound Expedited Venue Discovery; granting in part and denying in part 49 Motion for Extension of Time to File Response/Reply. Signed by District Judge Rodney Gilstrap on 12/22/2021. (nkl,) (Entered: 12/22/2021)
01/13/2022	64	NOTICE of Discovery Disclosure by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation (Stevens, Matthew) (Entered: 01/13/2022)

01/13/2022	65	NOTICE of Discovery Disclosure by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. <i>of Compliance regarding 3-3 and 3-4 Disclosures and Subject Matter Eligibility Contentions</i> (Findlay, Eric) (Entered: 01/13/2022)
01/27/2022	66	NOTICE of Attorney Appearance by Michael Clayton Deane on behalf of Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation (Deane, Michael) (Entered: 01/27/2022)
01/27/2022	67	NOTICE of Attorney Appearance by Adam Bertram Ahnhut on behalf of Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation (Ahnhut, Adam) (Entered: 01/27/2022)
01/28/2022	68	Unopposed MOTION to Withdraw as Attorney by Nokia of America Corporation. (Attachments: # 1 Text of Proposed Order)(Dacus, Deron) (Entered: 01/28/2022)
01/28/2022	 69	Sealed Document. NOKIA CORPORATION, NOKIA SOLUTIONS AND NETWORKS OY, AND NOKIA OF AMERICA CORPORATIONS ANSWER TO THE COMPLAINT (Stevens, Matthew) Modified on 1/28/2022 (ch,). (Entered: 01/28/2022)
01/28/2022	 70	Sealed Document - NOKIA OF AMERICA CORPORATIONS THIRD-PARTY COMPLAINT AGAINST BROADCOM (Stevens, Matthew) Modified on 1/28/2022 (ch,). (Entered: 01/28/2022)
01/28/2022	71	SUMMONS Issued as to Avago Technologies International Sales Pte. Ltd., Broadcom Incorporated, Broadcom Corporation. (Attachments: # 1 Summons(es), # 2 Summons(es))(ch,) (Entered: 01/28/2022)
01/31/2022	72	REDACTION to 69 Sealed Document <i>Nokia Corporation, Nokia Solutions and Networks Oy, and Nokia of America Corporations Answer to the Complaint</i> by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Stevens, Matthew) (Entered: 01/31/2022)
01/31/2022	73	REDACTION to 70 Sealed Document <i>Nokia of America Corporations Third-Party Complaint Against Broadcom</i> by Nokia of America Corporation. (Stevens, Matthew) (Entered: 01/31/2022)
01/31/2022	 74	Sealed Document - Notice of Supplemental Support for CommScope's Motion to Transfer. (Attachments: # 1 Declaration of Dr. Leonard J. Cimini)(Findlay, Eric) (Entered: 01/31/2022)
02/01/2022	75	REDACTION to 74 Sealed Document <i>Notice of Supplemental Support for CommScope's Motion to Transfer</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Redacted - Declaration of Dr. Leonard J. Cimini)(Findlay, Eric) (Entered: 02/01/2022)
02/03/2022	76	Unopposed MOTION for Extension of Time to Complete Discovery <i>TQ Delta, LLC's Unopposed Motion to Extend the Deadline for Venue Discovery</i> by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 02/03/2022)
02/04/2022	77	Opposed MOTION for Entry of Order Focusing Patent Claims and Prior Art by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International

		Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Text of Proposed Order)(Stevens, Matthew) (Entered: 02/04/2022)
02/07/2022	78	NOTICE of Attorney Appearance by Amadou Kilkenny Diaw on behalf of ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Diaw, Amadou) (Entered: 02/07/2022)
02/10/2022	79	NOTICE of Discovery Disclosure by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation <i>Defendants Proposed List of Terms for Construction</i> (Stevens, Matthew) (Entered: 02/10/2022)
02/10/2022	80	NOTICE of Discovery Disclosure by TQ Delta, LLC of <i>Proposed Claim Terms for Construction in Accordance with P.R. 4-1</i> (Davis, William) (Entered: 02/10/2022)
02/14/2022	81	SUMMONS Returned Executed by Nokia of America Corporation. Broadcom Corporation served on 2/7/2022, answer due 2/28/2022. (Stevens, Matthew) (Entered: 02/14/2022)
02/14/2022	82	SUMMONS Returned Executed by Nokia of America Corporation. Broadcom Incorporated served on 2/7/2022, answer due 2/28/2022. (Stevens, Matthew) (Entered: 02/14/2022)
02/14/2022	83	SUMMONS Returned Executed by Nokia of America Corporation. Avago Technologies International Sales Pte. Ltd. served on 2/8/2022, answer due 3/1/2022. (Stevens, Matthew) (Entered: 02/14/2022)
02/18/2022	84	NOTICE of Attorney Appearance by Darlena Subashi on behalf of Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation (Subashi, Darlena) (Entered: 02/18/2022)
02/18/2022	85	RESPONSE in Opposition re 77 Opposed MOTION for Entry of Order Focusing Patent Claims and Prior Art <i>filed by TQ Delta, LLC</i> . (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 02/18/2022)
02/21/2022	86	Opposed MOTION - TQ Delta, LLC's Motion for Leave to Amend its Infringement Contentions Against the Nokia Defendants by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Ty Wilson, # 2 Exhibit A - '162 Patent Claim Chart, # 3 Exhibit B- Proposed Amended '162 Patent Claim Chart, # 4 Text of Proposed Order)(Davis, William) (Entered: 02/21/2022)
02/22/2022	87	Defendant's Unopposed First Application for Extension of Time to Answer Complaint re Avago Technologies International Sales Pte. Ltd..(Smith, Melissa) (Entered: 02/22/2022)
02/22/2022	88	Defendant's Unopposed First Application for Extension of Time to Answer Complaint re Broadcom Corporation, Broadcom Incorporated.(Smith, Melissa) (Entered: 02/22/2022)
02/22/2022		Defendant's Unopposed First Application for Extension of Time to Answer Complaint is granted pursuant to Local Rule CV-12 for Avago Technologies

		International Sales Pte. Ltd. to 3/31/2022. 30 Days Granted for Deadline Extension.(nkl,) (Entered: 02/22/2022)
02/22/2022		Defendant's Unopposed First Application for Extension of Time to Answer Complaint is granted pursuant to Local Rule CV-12 for Broadcom Corporation to 3/30/2022; Broadcom Incorporated to 3/30/2022. 30 Days Granted for Deadline Extension.(nkl,) (Entered: 02/22/2022)
02/22/2022	 89	SEALED RESPONSE to Motion re 32 Opposed MOTION to Change Venue <i>to the District of Delaware</i> filed by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Edward Chin, # 2 Exhibit 1, # 3 Exhibit 2, # 4 Exhibit 3, # 5 Exhibit 4, # 6 Exhibit 5, # 7 Exhibit 6, # 8 Exhibit 7, # 9 Exhibit 8, # 10 Exhibit 9, # 11 Exhibit 10, # 12 Exhibit 11, # 13 Exhibit 12, # 14 Exhibit 13, # 15 Exhibit 14, # 16 Exhibit 15, # 17 Exhibit 16, # 18 Exhibit 17, # 19 Exhibit 18, # 20 Text of Proposed Order)(Davis, William) (Entered: 02/22/2022)
02/23/2022	90	ORDER granting 68 Motion to Withdraw as Attorney. Attorney Deron R Dacus terminated. Signed by District Judge Rodney Gilstrap on 2/23/2022. (nkl,) (Entered: 02/23/2022)
02/24/2022	91	REDACTION to 89 Sealed Response to Motion,, <i>Plaintiff TQ Delta's Response in Opposition to CommScope's Motion to Transfer Venue to the District of Delaware</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Ed Chin, # 2 Exhibit 1, # 3 Exhibit 2, # 4 Exhibit 3, # 5 Exhibit 4, # 6 Exhibit 5, # 7 Exhibit 6, # 8 Exhibit 7, # 9 Exhibit 8, # 10 Exhibit 9, # 11 Exhibit 10, # 12 Exhibit 11, # 13 Exhibit 12, # 14 Exhibit 13, # 15 Exhibit 14, # 16 Exhibit 15, # 17 Exhibit 16, # 18 Exhibit 17, # 19 Exhibit 18, # 20 Text of Proposed Order)(Davis, William) (Entered: 02/24/2022)
02/25/2022	 92	SEALED REPLY to Response to Motion re 32 Opposed MOTION to Change Venue <i>to the District of Delaware</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Attachments: # 1 Declaration of Andrew S. Ong, # 2 Exhibit 18, # 3 Exhibit 19, # 4 Exhibit 20, # 5 Exhibit 21, # 6 Exhibit 22, # 7 Exhibit 23, # 8 Exhibit 24)(Findlay, Eric) (Entered: 02/25/2022)
02/25/2022	93	REDACTION to 92 Sealed Reply to Response to Motion, <i>to Change Venue to the District of Delaware</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Declaration of Andrew S. Ong, # 2 Exhibit 18, # 3 Exhibit 19, # 4 Exhibit 20, # 5 Exhibit 21 - Redacted in Full, # 6 Exhibit 22, # 7 Exhibit 23, # 8 Exhibit 24)(Findlay, Eric) (Entered: 02/25/2022)
02/28/2022	94	REPLY to Response to Motion re 77 Opposed MOTION for Entry of Order Focusing Patent Claims and Prior Art <i>filed by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation.</i> (Attachments: # 1 Exhibit Ex A - Davis email) (Stevens, Matthew) (Entered: 02/28/2022)
03/03/2022	95	NOTICE of Discovery Disclosure by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia

		Corporation, Nokia Solutions, Nokia of America Corporation (Stevens, Matthew) (Entered: 03/03/2022)
03/03/2022	<u>96</u>	NOTICE of Discovery Disclosure by TQ Delta, LLC <i>re Local Patent Rule 4-2 Preliminary Claim Constructions and Identification of Extrinsic Evidence</i> (Davis, William) (Entered: 03/03/2022)
03/04/2022	<u>97</u>	SUR-REPLY to Reply to Response to Motion re <u>32</u> Opposed MOTION to Change Venue <i>to the District of Delaware filed by TQ Delta, LLC</i> . (Attachments: # <u>1</u> Affidavit Declaration of Edward Chin, # <u>2</u> Exhibit 19 - Excerpts from the Expert Report of J. Putnam - 11.2.18, # <u>3</u> Exhibit 20 - Claim Construction Order - 5.15.18, # <u>4</u> Exhibit 21 - Defendants' P.R. 4-2 Disclosures 3.3.22, # <u>5</u> Exhibit 22 - '686 Patent, # <u>6</u> Exhibit 23 - '112 Patent, # <u>7</u> Exhibit 24 - '055 Patent, # <u>8</u> Exhibit 25 - '809 Patent, # <u>9</u> Exhibit 26 - Cover Pleading - 2Wire's Final Invalidity Contentions - 8.5.18)(Davis, William) (Entered: 03/04/2022)
03/07/2022	<u>98</u>	Unopposed MOTION - Unopposed Motion by Plaintiff TQ Delta for Leave to Correct its Infringement Contentions by TQ Delta, LLC. (Attachments: # <u>1</u> Text of Proposed Order)(Davis, William) (Entered: 03/07/2022)
03/07/2022	<u>99</u>	NOTICE of Attorney Appearance - Pro Hac Vice by Amanda E Stephenson on behalf of ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc.. Filing fee \$ 100, receipt number 0540-8818525. (Stephenson, Amanda) (Entered: 03/07/2022)
03/07/2022	<u>100</u>	RESPONSE to Motion re <u>86</u> Opposed MOTION - TQ Delta, LLC's Motion for Leave to Amend its Infringement Contentions Against the Nokia Defendants <i>filed by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation</i> . (Attachments: # <u>1</u> Text of Proposed Order)(Stevens, Matthew) (Entered: 03/07/2022)
03/07/2022	<u>101</u>	SUR-REPLY to Reply to Response to Motion re <u>77</u> Opposed MOTION for Entry of Order Focusing Patent Claims and Prior Art <i>filed by TQ Delta, LLC</i> . (Attachments: # <u>1</u> Affidavit Declaration of Edward Chin, # <u>2</u> Exhibit 1 - Excerpts from the Expert Report of J. Putnam - 11.2.18, # <u>3</u> Exhibit 2 - Claim Construction Order - 5.15.18, # <u>4</u> Exhibit 3 - Defendants' P.R. 4-2 Disclosure 3.3.22)(Davis, William) (Entered: 03/07/2022)
03/08/2022	<u>102</u>	NOTICE by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. re <u>32</u> Opposed MOTION to Change Venue <i>to the District of Delaware Notice of Completed Briefing Regarding Defendants' Motion to Transfer Venue to the District of Delaware</i> (Findlay, Eric) (Entered: 03/08/2022)
03/09/2022	<u>103</u>	Unopposed MOTION to Amend/Correct <i>for Leave to Correct Its Invalidity Contentions</i> by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # <u>1</u> Text of Proposed Order)(Stevens, Matthew) (Entered: 03/09/2022)
03/11/2022	<u>104</u>	ORDER granting <u>103</u> Motion to Amend/Correct for Leave to Correct Its Invalidity Contentions. Signed by District Judge Rodney Gilstrap on 3/11/2022. (nkl,) (Entered: 03/11/2022)
03/11/2022	<u>105</u>	ORDER granting <u>98</u> Motion for Leave to Correct its Infringement Contentions. Signed by District Judge Rodney Gilstrap on 3/11/2022. (nkl,)

		(Entered: 03/11/2022)
03/14/2022	106	REPLY to Response to Motion re 86 Opposed MOTION - TQ Delta, LLC's Motion for Leave to Amend its Infringement Contentions Against the Nokia Defendants <i>filed by TQ Delta, LLC</i> . (Davis, William) (Entered: 03/14/2022)
03/14/2022	107	Joint Claim Construction and Prehearing Statement (Attachments: # 1 Exhibit A - Plaintiffs Proposed Terms, # 2 Exhibit B - Defendants Proposed Terms) (Davis, William) (Entered: 03/14/2022)
03/15/2022		(Court only) ***Motions terminated: 51 Joint MOTION for Extension of Time to File <i>Joint Motion for Extension of Time to Submit the Parties' Proposed Discovery Order and Proposed Docket Control Order</i> filed by TQ Delta, LLC, 53 Joint MOTION for Entry of Agreed Docket Control Order filed by TQ Delta, LLC. (moot per 62) (jrg5,) (Entered: 03/15/2022)
03/21/2022	108	SUR-REPLY to Reply to Response to Motion re 86 Opposed MOTION - TQ Delta, LLC's Motion for Leave to Amend its Infringement Contentions Against the Nokia Defendants <i>filed by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation</i> . (Attachments: # 1 Affidavit Declaration of Darlena H. Subashi, # 2 Exhibit Exhibit 1 - Email correspondence)(Stevens, Matthew) (Entered: 03/21/2022)
03/23/2022	109	Defendant's Unopposed Second Application for Extension of Time to Answer Complaint re Avago Technologies International Sales Pte. Ltd.(Smith, Melissa) (Entered: 03/23/2022)
03/23/2022	110	Defendant's Unopposed Second Application for Extension of Time to Answer Complaint re Broadcom Corporation, Broadcom Incorporated.(Smith, Melissa) (Entered: 03/23/2022)
03/24/2022		Defendant's Unopposed Second Application for Extension of Time to Answer Complaint is granted pursuant to Local Rule CV-12 for Avago Technologies International Sales Pte. Ltd. to 4/15/2022. 15 Days Granted for Deadline Extension.(nkl,) (Entered: 03/24/2022)
03/24/2022		Defendant's Unopposed Second Application for Extension of Time to Answer Complaint is granted pursuant to Local Rule CV-12 for Broadcom Corporation to 4/14/2022; Broadcom Incorporated to 4/14/2022. 15 Days Granted for Deadline Extension.(nkl,) (Entered: 03/24/2022)
03/28/2022	111	ORDER denying 32 Motion to Change Venue. Signed by District Judge Rodney Gilstrap on 3/28/2022. (nkl,) (Entered: 03/28/2022)
04/01/2022	112	Opposed MOTION for Leave to Amend Its Invalidity Contentions by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Affidavit Declaration of Darlena H. Subashi, # 2 Exhibit 1 - 3/8/22 Subashi Ltr to Davis, # 3 Exhibit 2 - 3/22/22 Subashi Ltr to Davis, # 4 Exhibit 3 - 3/23/31/22 Email correspondence re Nokias Amended Invalidity Contentions, # 5 Exhibit 4 - Excerpts of redline version Amended Invalidity Contentions, # 6 Exhibit 5 - Ex F4-008O to Nokias Amended Invalidity Contentions, # 7 Exhibit 6 - Ex F4-008P to Nokias Amended Invalidity Contentions, # 8 Text of Proposed Order)(Stevens, Matthew) (Entered: 04/01/2022)
04/13/2022	113	ORDER denying as moot 76 Motion for Extension of Time to Complete Discovery. Signed by District Judge Rodney Gilstrap on 4/13/2022. (ch,) (Entered: 04/13/2022)














04/14/2022	 114	SEALED PATENT MOTION <i>TO DISMISS</i> by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. (Attachments: # 1 Affidavit M. Smith, # 2 Exhibit A, # 3 Exhibit B, # 4 Exhibit C, # 5 Exhibit D, # 6 Exhibit E, # 7 Exhibit F, # 8 Text of Proposed Order)(Smith, Melissa) (Entered: 04/14/2022)
04/14/2022	115	CORPORATE DISCLOSURE STATEMENT filed by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated (Smith, Melissa) (Entered: 04/14/2022)
04/15/2022	 116	SEALED RESPONSE to Motion re 112 Opposed MOTION for Leave to Amend Its Invalidity Contentions filed by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Edward Chin, # 2 Exhibit A, # 3 Exhibit B, # 4 Exhibit C, # 5 Exhibit D, # 6 Exhibit E, # 7 Exhibit F, # 8 Exhibit G, # 9 Exhibit H, # 10 Exhibit I, # 11 Exhibit J, # 12 Exhibit K, # 13 Exhibit L, # 14 Exhibit M, # 15 Exhibit N, # 16 Exhibit O, # 17 Exhibit P, # 18 Exhibit Q, # 19 Exhibit R, # 20 Exhibit S, # 21 Exhibit T, # 22 Text of Proposed Order) (Davis, William) (Entered: 04/15/2022)
04/20/2022		NOTICE of Hearing:Markman Hearing originally set for 6/3/2022 is RESET for 6/1/2022 09:00 AM in Ctrm 106 (Marshall) before District Judge Rodney Gilstrap. (aeb) (Entered: 04/20/2022)
04/20/2022	117	REDACTION to 116 Sealed Response to Motion,, <i>Plaintiff TQ Delta's Response in Opposition to Nokia's Motion for Leave to Amend its Invalidity Contentions [Dkt. No. 112]</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Edward Chin, # 2 Exhibit A, # 3 Exhibit B, # 4 Exhibit C, # 5 Exhibit Placeholder - Exhibits D - G Filed Under Seal in Their Entirety, # 6 Exhibit H, # 7 Exhibit I, # 8 Exhibit J, # 9 Exhibit K, # 10 Exhibit L, # 11 Exhibit M, # 12 Exhibit N, # 13 Exhibit O, # 14 Exhibit P, # 15 Exhibit Placeholder - Exhibits Q - S Filed Under Seal in Their Entirety, # 16 Exhibit T, # 17 Text of Proposed Order)(Davis, William) (Entered: 04/20/2022)
04/21/2022	118	ORDER granting 33 Motion To File Under Seal. Signed by District Judge Rodney Gilstrap on 4/21/2022. (nkl,) (Entered: 04/21/2022)
04/22/2022	119	NOTICE of Discovery Disclosure by TQ Delta, LLC <i>regarding Privilege Log</i> (Davis, William) (Entered: 04/22/2022)
04/25/2022	120	NOTICE of Discovery Disclosure by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation <i>of Nokia's Privilege Log</i> (Stevens, Matthew) (Entered: 04/25/2022)
04/25/2022	 121	SEALED REPLY to Response to Motion re 112 Opposed MOTION for Leave to Amend Its Invalidity Contentions filed by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Stevens, Matthew) (Entered: 04/25/2022)
04/25/2022	122	NOTICE of Discovery Disclosure by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. <i>regarding Privilege Logs</i> (Findlay, Eric) (Entered: 04/25/2022)
04/26/2022	123	NOTICE by TQ Delta, LLC <i>Notice of Submission of Technology Tutorial</i> (Davis, William) (Entered: 04/26/2022)
04/26/2022	124	OPENING CLAIM CONSTRUCTION BRIEF filed by TQ Delta, LLC. (Attachments: # 1 Exhibit 1 - 686 Patent, # 2 Exhibit 2 - 193 Patent, # 3


		Exhibit 3 - 881 Patent, # 4 Exhibit 4 - 608 Patent, # 5 Exhibit 5 - 882 Patent, # 6 Exhibit 6 - 008 Patent, # 7 Exhibit 7 - 162 Patent, # 8 Exhibit 8 - 835 Patent, # 9 Exhibit 9 - 348 Patent, # 10 Exhibit 10 - 354 Patent, # 11 Exhibit 11 - Madisetti Expert Declaration, # 12 Exhibit 12 - Cooklev Expert Declaration, # 13 Exhibit 13 - McNair Expert Declaration, # 14 Exhibit 14 - Zimmerman Expert Declaration, # 15 Exhibit 15 - Wesel Expert Declaration, # 16 Exhibit 16 - 1998 Merriam Webster Dictionary, # 17 Exhibit 17 - 1988 IEEE Standard Dictionary, # 18 Exhibit 18 - ITU-T G.993.1, # 19 Exhibit 19 - Provisional Patent App. No. 60549,804, # 20 Exhibit 20 - Family 1 Claim Construction Opinion, # 21 Exhibit 21 - Family 2 Claim Construction Opinion, # 22 Exhibit 22 - Family 2 Summary Judgment Order, # 23 Exhibit 23 - Family 3 Claim Construction Opinion, # 24 Exhibit 24 - Family 9 Claim Construction Opinion, # 25 Exhibit 25 - Family 4 Claim Construction Opinion)(Davis, William) (Entered: 04/26/2022)
04/27/2022	125	REDACTION to 121 Sealed Reply to Response to Motion <i>for Leave to Amend Invalidity Contentions</i> by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Stevens, Matthew) (Entered: 04/27/2022)
04/27/2022	126	NOTICE by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation <i>Notice of Technology Tutorial</i> (Attachments: # 1 Exhibit Defendants' Tech Tutorial Slides)(Stevens, Matthew) (Entered: 04/27/2022)
04/28/2022	 127	SEALED RESPONSE to Motion re 114 SEALED PATENT MOTION <i>TO DISMISS</i> filed by Nokia of America Corporation. (Attachments: # 1 Declaration of Darlena H. Subashi, # 2 Exhibit 1, # 3 Exhibit 2, # 4 Exhibit 3, # 5 Exhibit 4, # 6 Exhibit 5, # 7 Exhibit 6, # 8 Exhibit 7, # 9 Text of Proposed Order)(Stevens, Matthew) (Entered: 04/28/2022)
05/02/2022	128	ORDER FOCUSING PATENT CLAIMS AND PRIOR ART. Signed by District Judge Rodney Gilstrap on 5/2/2022. (nkl,) (Entered: 05/02/2022)
05/02/2022	129	***FILED IN ERROR*** RESPONSE in Opposition re 114 SEALED PATENT MOTION <i>TO DISMISS [Public version of dkt 127]</i> filed by Nokia of America Corporation. (Attachments: # 1 Declaration of Darlena H. Subashi, # 2 Exhibit 1, # 3 Exhibit 2, # 4 Exhibit 3, # 5 Exhibit 4, # 6 Exhibit 5, # 7 Exhibit 6, # 8 Exhibit 7, # 9 Text of Proposed Order)(Stevens, Matthew) Modified on 5/2/2022 (ch,). (Entered: 05/02/2022)
05/02/2022		(Court only) ***Party David Keyzer added. (ch,) (Entered: 05/02/2022)
05/02/2022	130	ORDER - Court hereby appoints Mr. David Keyzer as the Courts technical advisor. Signed by District Judge Rodney Gilstrap on 5/2/2022. (ch,) (Entered: 05/02/2022)
05/02/2022		***FILED IN ERROR. FILED UNDER WRONG EVENT Document # 129, Response. PLEASE IGNORE.*** (ch,) (Entered: 05/02/2022)
05/02/2022	131	REDACTION to 127 Sealed Response to Motion, <i>Opposition to the Third-Party Defendants' Motion to Dismiss</i> by Nokia of America Corporation.


		(Attachments: # 1 Declaration of Darlena H. Subashi, # 2 Exhibit 1, # 3 Exhibit 2, # 4 Exhibit 3, # 5 Exhibit 4, # 6 Exhibit 5, # 7 Exhibit 6, # 8 Exhibit 7, # 9 Text of Proposed Order)(Stevens, Matthew) (Entered: 05/02/2022)
05/02/2022	 132	SEALED SUR-REPLY to Reply to Response to Motion re 112 Opposed MOTION for Leave to Amend Its Invalidity Contentions filed by TQ Delta, LLC. (Attachments: # 1 Exhibit U)(Davis, William) (Entered: 05/02/2022)
05/05/2022	 133	SEALED PATENT REPLY to Response to PATENT Motion re 114 SEALED PATENT MOTION <i>TO DISMISS</i> filed by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. (Attachments: # 1 Affidavit M. Smith, # 2 Exhibit A, # 3 Exhibit B, # 4 Exhibit C)(Smith, Melissa) (Entered: 05/05/2022)
05/05/2022	134	REDACTION to 132 Sealed Sur-Reply to Reply to Response to Motion Plaintiff TQ Delta's Surreply in Opposition to Nokia's Motion for Leave to Amend its Invalidity Contentions (Dkt No. 112) by TQ Delta, LLC. (Attachments: # 1 Exhibit Placeholder - Exhibit U Filed Under Seal in its Entirety)(Davis, William) (Entered: 05/05/2022)
05/06/2022	135	CLAIM CONSTRUCTION BRIEF filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Declaration of Darlena H. Subashi, # 2 Exhibit 1 - US 7,570,686, # 3 Exhibit 2 - US 9,014,193, # 4 Exhibit 3 - US 9,300,601, # 5 Exhibit 4 - US 9,894,014, # 6 Exhibit 5 - US 8,495,473, # 7 Exhibit 6 - US 7,844,882, # 8 Exhibit 7 - US 9,547,608, # 9 Exhibit 8 - US 10,409,510, # 10 Exhibit 9 - US 8,090,008, # 11 Exhibit 10 - US 10,567,112, # 12 Exhibit 11 - US 8,594,162, # 13 Exhibit 12 - US 9,485,055, # 14 Exhibit 13 - US 9,094,348, # 15 Exhibit 14 - US 10,833,809, # 16 Exhibit 15 - US 8,595,577, # 17 Exhibit 16 - US 8,468,411, # 18 Exhibit 17 - US 10,044,473, # 19 Exhibit 18 - US 9,154,354, # 20 Exhibit 19 - US 8,937,988, # 21 Exhibit 20 - US 8,276,048, # 22 Exhibit 21 - US 7,453,881, # 23 Exhibit 22 - US 8,462,835, # 24 Exhibit 23 - McNair Decl, # 25 Exhibit 24 - Zimmerman Decl, # 26 Exhibit 25 - Wesel Decl, # 27 Exhibit 26 - Provisional Application No. 60/164,134, # 28 Exhibit 27 - CC Brief for Fam 4 in Del. cases, # 29 Exhibit 28 - Cooklev depo, # 30 Exhibit 29 - Family 6 CC Mem. Op., # 31 Exhibit 30 - Family 2 CC Mem. Op., # 32 Exhibit 31 - 882 Claim Chart, # 33 Exhibit 32 - Family 4 CC Mem. Op, # 34 Exhibit 33 - Cooklev Decl, # 35 Exhibit 34 - 3-18-21 Tr. ADTRAN Case, # 36 Exhibit 35 - Family 1 CC Mem. Op., # 37 Exhibit 36 - Family 6 CC Order)(Stevens, Matthew) (Entered: 05/06/2022)
05/09/2022	136	REDACTION to 114 SEALED PATENT MOTION <i>TO DISMISS</i> by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. (Attachments: # 1 Exhibit F, # 2 Text of Proposed Order)(Smith, Melissa) (Entered: 05/09/2022)
05/09/2022	137	NOTICE of Discovery Disclosure by TQ Delta, LLC <i>regarding Preliminary Election of Asserted Claims</i> (Davis, William) (Entered: 05/09/2022)
05/10/2022	138	REDACTION to 133 Sealed PATENT Reply to Response to PATENT Motion, by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. (Attachments: # 1 Affidavit M. Smith, # 2 Exhibit A, # 3 Exhibit B)(Smith, Melissa) (Entered: 05/10/2022)





05/12/2022	 139	SEALED SUR-REPLY to Reply to Response to Motion re 114 SEALED PATENT MOTION <i>TO DISMISS</i> filed by Nokia of America Corporation. (Attachments: # 1 Declaration of Darlena H. Subashi, # 2 Exhibit 8 - email correspondence)(Stevens, Matthew) (Entered: 05/12/2022)
05/13/2022	140	REPLY CLAIM CONSTRUCTION BRIEF filed by TQ Delta, LLC (Attachments: # 1 Exhibit 26 - Excerpts of ANSI T1.413.1998)(Davis, William) (Entered: 05/13/2022)
05/16/2022	141	REDACTION to 139 Sealed Sur-Reply to Reply to Response to Motion, <i>Nokia's Sur-Reply in Opposition to the Third-Party Defendants' Motion to Dismiss</i> by Nokia of America Corporation. (Attachments: # 1 Declaration of Darlena H. Subashi)(Stevens, Matthew) (Entered: 05/16/2022)
05/19/2022	142	NOTICE of Discovery Disclosure by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation <i>Defendants' Preliminary Election of Prior Art</i> (Stevens, Matthew) (Entered: 05/19/2022)
05/19/2022	143	Unopposed MOTION to Withdraw as Attorney <i>for Christie Larochelle</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order)(Findlay, Eric) (Entered: 05/19/2022)
05/20/2022	 144	Opposed SEALED PATENT MOTION <i>FOR LEAVE TO FILE RESPONSE TO THIRD PARTY PLAINTIFF'S NEW ARGUMENTS AND EVIDENCE</i> by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. (Attachments: # 1 Text of Proposed Order)(Smith, Melissa) (Entered: 05/20/2022)
05/20/2022	 145	SEALED PATENT RESPONSE by Broadcom Corporation, Avago Technologies International Sales Pte. Ltd., Broadcom Incorporated to 139 Sealed Sur-Reply to Reply to Response to Motion THIRD-PARTY DEFENDANTS' RESPONSE TO THIRD PARTY PLAINTIFF'S NEW ARGUMENTS AND EVIDENCE <i>filed by Broadcom Corporation, Avago Technologies International Sales Pte. Ltd., Broadcom Incorporated.</i> (Attachments: # 1 Exhibit A)(Smith, Melissa) (Entered: 05/20/2022)
05/20/2022	146	Joint Claim Construction Chart Pursuant to P.R. 4-5(D) by TQ Delta, LLC. (Attachments: # 1 Appendix A)(Hurt, Christian) (Entered: 05/20/2022)
05/20/2022	147	ORDER granting 143 Motion to Withdraw as Attorney. Attorney Christie Larochelle terminated. Signed by District Judge Rodney Gilstrap on 5/20/2022. (nkl,) (Entered: 05/20/2022)
05/23/2022	148	NOTICE of Attorney Appearance by Kirk T Bradley on behalf of Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation (Bradley, Kirk) (Entered: 05/23/2022)
05/23/2022	149	Amended Joint Claim Construction Chart Pursuant to P.R. 4-5(D) by TQ Delta, LLC. (Attachments: # 1 Appendix A)(Hurt, Christian) (Entered: 05/23/2022)
05/24/2022	150	REDACTION to 144 Opposed SEALED PATENT MOTION <i>FOR LEAVE TO FILE RESPONSE TO THIRD PARTY PLAINTIFF'S NEW ARGUMENTS AND</i>




		<i>EVIDENCE</i> by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. (Smith, Melissa) (Entered: 05/24/2022)
05/24/2022	151	REDACTION to 145 Sealed Patent Response to Non-Motion, by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. (Smith, Melissa) (Entered: 05/24/2022)
05/24/2022		(Court only) ***Motions terminated: 77 Opposed MOTION for Entry of Order Focusing Patent Claims and Prior Art filed by CommScope Holding Company, Inc., Nokia Corporation, Nokia of America Corporation, ARRIS US Holdings, Inc., ARRIS Technology, Inc., ARRIS Solutions, Inc., ARRIS International Limited, ARRIS Enterprises, LLC, Networks Oy, Commscope Inc., Nokia Solutions, ARRIS Global Ltd.. (klc,) (Entered: 05/24/2022)
05/24/2022	152	Opposed MOTION to Stay <i>CommScope Defendants' Opposed Motion for a Partial Stay</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order, # 2 Declaration of Andrew S. Ong, # 3 Exhibit 1, # 4 Exhibit 2, # 5 Exhibit 3, # 6 Exhibit 4, # 7 Exhibit 5, # 8 Exhibit 6, # 9 Exhibit 7, # 10 Exhibit 8, # 11 Exhibit 9, # 12 Exhibit 10, # 13 Exhibit 11, # 14 Exhibit 12, # 15 Exhibit 13, # 16 Exhibit 14, # 17 Exhibit 15, # 18 Exhibit 16, # 19 Exhibit 17, # 20 Exhibit 18, # 21 Exhibit 19, # 22 Exhibit 20, # 23 Exhibit 21, # 24 Exhibit 22, # 25 Exhibit 23, # 26 Exhibit 24, # 27 Exhibit 25, # 28 Exhibit 26)(Findlay, Eric) (Entered: 05/24/2022)
05/25/2022	153	Joint MOTION for Clarification of Order Focusing Patent Claims and Prior Art re 128 Order by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 05/25/2022)
05/27/2022	154	NOTICE of Attorney Appearance by Katherine Donald on behalf of Nokia Corporation, Nokia Solutions, Nokia of America Corporation (Donald, Katherine) (Entered: 05/27/2022)
05/27/2022	 155	SEALED RESPONSE to Motion re 144 Opposed SEALED PATENT MOTION <i>FOR LEAVE TO FILE RESPONSE TO THIRD PARTY PLAINTIFF'S NEW ARGUMENTS AND EVIDENCE</i> filed by Nokia of America Corporation. (Attachments: # 1 Text of Proposed Order)(Stevens, Matthew) (Entered: 05/27/2022)
05/27/2022	156	Unopposed MOTION for Leave to File <i>Supplemental Claim Construction Brief</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Text of Proposed Order, # 2 Defendants' Supplemental Claim Construction Brief, # 3 Exhibit 37, # 4 Exhibit 38)(Findlay, Eric) (Entered: 05/27/2022)
05/27/2022	157	DEFENDANTS' SUPPLEMENTAL CLAIM CONSTRUCTION BRIEF filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Exhibit 37, # 2 Exhibit 38)(Findlay, Eric) (Entered: 05/27/2022)
05/31/2022	158	NOTICE of Attorney Appearance - Pro Hac Vice by Peter J McAndrews on behalf of TQ Delta, LLC. Filing fee \$ 100, receipt number ATXEDC-8950762.





		(McAndrews, Peter) (Entered: 05/31/2022)
05/31/2022	159	ORDER granting 156 Motion for Leave to File Supplemental Claim Construction Brief. Signed by District Judge Rodney Gilstrap on 5/31/2022. (nkl,) (Entered: 05/31/2022)
06/01/2022	160	REDACTION to 155 Sealed Response to Motion, by Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Stevens, Matthew) (Entered: 06/01/2022)
06/01/2022	161	Minute Entry for proceedings held before District Judge Rodney Gilstrap: Markman Hearing held on 6/1/2022. (Court Reporter Shawn McRoberts, RMR, CRR.) (Attachments: # 1 Attorney Attendance Sheet) (aeb) (Entered: 06/01/2022)
06/02/2022	162	***FILED IN ERROR*** NOTICE of Attorney Appearance by Rajendra A Chiplunkar on behalf of TQ Delta, LLC (Chiplunkar, Rajendra) Modified on 6/2/2022 (ch,). (Entered: 06/02/2022)
06/02/2022		***FILED IN ERROR. FILED UNDER WRONG EVENT Document # 162, Notice of Attorney Appearance. PLEASE IGNORE.*** (ch,) (Entered: 06/02/2022)
06/02/2022	163	PAPER TRANSCRIPT REQUEST by Nokia Corporation, Nokia Solutions, Nokia of America Corporation for proceedings held on June 1, 2022, Markman Hearing before Judge Rodney Gilstrap. (Forwarded to Shawn McRoberts) (Stevens, Matthew) Modified on 6/2/2022 (bga). (Entered: 06/02/2022)
06/02/2022	164	PAPER TRANSCRIPT REQUEST by TQ Delta, LLC for proceedings held on June 1, 2022 - Markman Hearing before Judge Rodney Gilstrap. (Forwarded to Shawn McRoberts) (Davis, William) Modified on 6/2/2022 (bga). (Entered: 06/02/2022)
06/02/2022	165	PAPER TRANSCRIPT REQUEST by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. for proceedings held on June 1, 2022 Markman Hearing before Judge Rodney Gilstrap. (Forwarded to Shawn McRoberts) (Findlay, Eric) Modified on 6/2/2022 (bga). (Entered: 06/02/2022)
06/02/2022	166	NOTICE of Attorney Appearance - Pro Hac Vice by Rajendra A Chiplunkar on behalf of TQ Delta, LLC. Filing fee \$ 100, receipt number ATXEDC-8955444. (Chiplunkar, Rajendra) (Entered: 06/02/2022)
06/02/2022	167	ORDER granting 153 Motion for Clarification of Order Focusing Patent Claims and Prior Art. Signed by District Judge Rodney Gilstrap on 6/2/2022. (nkl,) (Entered: 06/02/2022)
06/07/2022	 168	SEALED RESPONSE to Motion re 152 Opposed MOTION to Stay <i>CommScope Defendants' Opposed Motion for a Partial Stay</i> filed by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Ty Wilson, # 2 Exhibit A, # 3 Exhibit B, # 4 Text of Proposed Order)(Davis, William) (Entered: 06/07/2022)




06/08/2022	169	CLAIM CONSTRUCTION MEMORANDUM AND ORDER. Signed by District Judge Rodney Gilstrap on 6/8/2022. (ch,) (Entered: 06/08/2022)
06/09/2022	170	ORDER - Court has received Mr. Keyzers invoice for servicethrough June 6, 2022, the court hereby ORDERS payment to be promptly made asfollows:. Signed by District Judge Rodney Gilstrap on 6/9/2022. (ch,) (Entered: 06/09/2022)
06/10/2022	171	NOTICE of Attorney Appearance by Stephen Richard Lareau on behalf of Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation (Lareau, Stephen) (Entered: 06/10/2022)
06/14/2022	 172	<p>NOTICE OF FILING OF OFFICIAL TRANSCRIPT of Markman Hearing Proceedings held on 06/01/2022 before Judge Rodney Gilstrap. Court Reporter/Transcriber: Shawn McRoberts, Telephone number: (903) 923-8546.</p> <p>NOTICE RE REDACTION OF TRANSCRIPTS: The parties have seven (7) days to file with the Court a Notice of Intent to Request Redaction of this transcript. If no such Notice is filed, the transcript will be made remotely electronically available to the public without redaction after 90 calendar days. The policy is located on our website at www.txed.uscourts.gov</p> <p>Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER.. Motion to Redact due 7/5/2022. Release of Transcript Restriction set for 9/12/2022. (smm,) (Entered: 06/14/2022)</p>
06/14/2022	173	REPLY to Response to Motion re 152 Opposed MOTION to Stay <i>CommScope Defendants' Opposed Motion for a Partial Stay</i> filed by <i>ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.</i> (Findlay, Eric) (Entered: 06/14/2022)
06/17/2022	174	ORDER Setting Hearing on Motion 86 Opposed MOTION - TQ Delta, LLC's Motion for Leave to Amend its Infringement Contentions Against the Nokia Defendants , 112 Opposed MOTION for Leave to Amend Its Invalidity Contentions : Motion Hearing set for 6/29/2022 10:00 AM before District Judge Rodney Gilstrap.. Signed by District Judge Rodney Gilstrap on 06/17/2022. (klc,) (Entered: 06/17/2022)
06/17/2022		The Court ORDERS that lead and local counsel for the parties meet and confer in-person in an effort to resolve these disputes beginning on Wednesday, June 29, 2022, at 8:00 a.m. central time and continuing until the Court takes up these matters on their merits. Such in-person meet and confer efforts shall take place within the Sam B. Hall, Jr. Federal Building and United States Courthouse in Marshall, Texas. Meet and Confer set for 6/29/2022 08:00 AM. (klc,) (Entered: 06/17/2022)
06/20/2022	175	REDACTION to 168 Sealed Response to Motion, <i>TQ Delta's Response to CommScope Defendants' Opposed Motion for a Partial Stay</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Ty Wilson, # 2 Exhibit A - Cover Pleading - TQ Delta's Preliminary Infringement Contentions, # 3 Exhibit B - Placeholder Filed Under Seal in its Entirety, # 4 Text of Proposed Order)(Davis, William) (Entered: 06/20/2022)




06/21/2022	 176	SEALED SUR-REPLY to Reply to Response to Motion re 152 Opposed MOTION to Stay <i>CommScope Defendants' Opposed Motion for a Partial Stay</i> filed by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Ty Wilson, # 2 Exhibit A, # 3 Exhibit B)(Davis, William) (Entered: 06/21/2022)
06/22/2022	177	NOTICE of Attorney Appearance - Pro Hac Vice by Kathleen McGuinness on behalf of ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. Filing fee \$ 100, receipt number ATXEDC-8985428. (McGuinness, Kathleen) (Entered: 06/22/2022)
06/22/2022	178	Opposed MOTION TO ENTER AMENDED DOCKET CONTROL ORDER by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. (Attachments: # 1 Exhibit A (Amended Docket Control Order), # 2 Exhibit B (Amended Docket Control Order))(Smith, Melissa) (Entered: 06/22/2022)
06/22/2022	179	Opposed MOTION TO ENTER AMENDED DISCOVERY ORDER by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. (Attachments: # 1 Exhibit A (Amended Discovery Order), # 2 Exhibit B (Amended Discovery Order))(Smith, Melissa) (Entered: 06/22/2022)
06/23/2022	180	NOTICE of Attorney Appearance - Pro Hac Vice by Kenneth S Chang on behalf of Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. Filing fee \$ 100, receipt number ATXEDC-8986742. (Chang, Kenneth) (Entered: 06/23/2022)
06/23/2022	181	NOTICE of Attorney Appearance by Daniel Shaw Young on behalf of Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated (Young, Daniel) (Entered: 06/23/2022)
06/23/2022	182	NOTICE of Attorney Appearance - Pro Hac Vice by Kent Thomas Dallow on behalf of Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. Filing fee \$ 100, receipt number ATXEDC-8987071. (Dallow, Kent) (Entered: 06/23/2022)
06/23/2022	183	REDACTION to 176 Sealed Sur-Reply to Reply to Response to Motion, <i>Plaintiff TQ Delta's Sur-Reply in Opposition to CommScope Defendants' Opposed Motion for a Partial Stay</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Ty Wilson, # 2 Exhibit A - 2Wire Docket Entries, # 3 Exhibit B - CommScope's First Supplemental Responses to Interrogatories, 6.10.22)(Davis, William) (Entered: 06/23/2022)
06/27/2022	184	NOTICE by TQ Delta, LLC re 86 Opposed MOTION - TQ Delta, LLC's Motion for Leave to Amend its Infringement Contentions Against the Nokia Defendants , 112 Opposed MOTION for Leave to Amend Its Invalidity Contentions , 174 Order Setting Hearing on Motion, - <i>Plaintiff TQ Delta and the Nokia Defendants Joint Notice Regarding Agreements Reached During the Meet-And-Confer Process</i> (Davis, William) (Entered: 06/27/2022)
06/28/2022		NOTICE of CANCELLATION: Hearing on Motion 86 Opposed MOTION - TQ Delta, LLC's Motion for Leave to Amend its Infringement Contentions Against the Nokia Defendants , 112 Opposed MOTION for Leave to Amend Its Invalidity Contentions : Motion Hearing originally set for 6/29/2022 10:00 AM before District Judge Rodney Gilstrap has been CANCELLED.(aeb) (Entered: 06/28/2022)




06/28/2022		(Court only) ***Deadlines terminated. Motion(s) hearing re: Dkt. No. 86 and 112 has been cancelled. (aeb) (Entered: 06/28/2022)
06/28/2022	185	ORDER re 184 Joint Notice Regarding Agreements Reached During the Meet-and-Confer Process. Court ACCEPTS AND ACKNOWLEDGES that TQ Delta and Nokia are now each unopposed to the others Motion. Accordingly, having considered the Motions and noting that they are unopposed, the Court finds that they should be and hereby are GRANTED. Further, the Court ORDERS that the hearing set for June 29, 2022, in the abovecaptioned cases is CANCELED. Signed by District Judge Rodney Gilstrap on 6/28/2022. (ch,) (Entered: 06/28/2022)
06/28/2022		(Court only) ***Deadlines terminated. (ch,) (Entered: 06/28/2022)
06/28/2022	186	MEMORANDUM OPINION AND ORDER denying 44 Motion to Dismiss. Signed by District Judge Rodney Gilstrap on 6/28/2022. (ch,) (Entered: 06/28/2022)
06/28/2022		(Court only) ***Motions terminated: 86 Opposed MOTION - TQ Delta, LLC's Motion for Leave to Amend its Infringement Contentions Against the Nokia Defendants filed by TQ Delta, LLC, 112 Opposed MOTION for Leave to Amend Its Invalidity Contentions filed by Nokia Corporation, Networks Oy, Nokia of America Corporation, Nokia Solutions. (klc,) (Entered: 06/28/2022)
06/28/2022	187	ORDER granting 144 Opposed SEALED PATENT MOTION FOR LEAVE TO FILE RESPONSE TO THIRD PARTY PLAINTIFF'S NEW ARGUMENTS AND EVIDENCE. Signed by District Judge Rodney Gilstrap on 6/28/2022. (ch,) (Entered: 06/28/2022)
06/28/2022	188	ORDER denying 20 Motion to Dismiss Under Rule 12(b)(6) for Failure to Plead Compliance with the Actual Notice and Marking Requirements of 35 U.S.C. § 287(a) (the Motion) in member case 2:21-cv-00309. Signed by District Judge Rodney Gilstrap on 6/28/2022. (ch,) (Entered: 06/29/2022)
06/29/2022	189	NOTICE by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated re 187 Order on Sealed Patent Motion (Smith, Melissa) (Entered: 06/29/2022)
07/01/2022	190	NOTICE of Attorney Appearance - Pro Hac Vice by Ashley Marie Ratycz on behalf of TQ Delta, LLC. Filing fee \$ 100, receipt number ATXEDC-9000179. (Ratycz, Ashley) (Entered: 07/01/2022)
07/05/2022	 191	Sealed Document. (Attachments: # 1 Declaration of M. Scott Stevens, # 2 Exhibit 8 - email correspondence, # 3 Exhibit 9 - letter correspondence) (Stevens, Matthew) (Entered: 07/05/2022)
07/06/2022	192	RESPONSE in Opposition re 178 Opposed MOTION TO ENTER AMENDED DOCKET CONTROL ORDER <i>filed by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Nokia of America Corporation.</i> (Attachments: # 1 Text of Proposed Order)(Stevens, Matthew) (Additional attachment(s) added on 7/7/2022: # 2 Revised Proposed Order) (nkl,). (Entered: 07/06/2022)
07/06/2022	193	RESPONSE in Opposition re 179 Opposed MOTION TO ENTER AMENDED DISCOVERY ORDER <i>filed by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS</i>

		<i>Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Nokia of America Corporation.</i> (Attachments: # 1 Text of Proposed Order)(Stevens, Matthew) (Additional attachment(s) added on 7/7/2022: # 2 Revised Proposed Order) (nkl,). (Entered: 07/06/2022)
07/06/2022	194	Opposed MOTION TO ENTER AMENDED PROTECTIVE ORDER by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Exhibit C, # 4 Text of Proposed Order)(Smith, Melissa) (Entered: 07/06/2022)
07/06/2022	195	RESPONSE in Opposition re 178 Opposed MOTION TO ENTER AMENDED DOCKET CONTROL ORDER <i>filed by TQ Delta, LLC.</i> (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 07/06/2022)
07/07/2022	196	REDACTION to 191 Sealed Document <i>Nokia's Reply to Third-Party Defendants' Supplemental Briefing</i> by Nokia of America Corporation. (Stevens, Matthew) (Entered: 07/07/2022)
07/07/2022	197	NOTICE by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. <i>Defendants' Stipulation regarding Invalidity Contentions</i> (Findlay, Eric) (Entered: 07/07/2022)
07/08/2022	 198	SEALED MOTION <i>TQ Delta, LLC's First Motion to Compel Discovery from Nokia</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Rudolph Fink IV, # 2 Exhibit 1, # 3 Exhibit 2, # 4 Text of Proposed Order)(Davis, William) (Entered: 07/08/2022)
07/11/2022	 199	SEALED MOTION <i>TQ Delta, LLC's First Motion to Compel Deposition from Nokia</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Rudolph Fink IV, # 2 Exhibit A, # 3 Exhibit B, # 4 Exhibit C, # 5 Text of Proposed Order)(Fink, Rudolph) (Entered: 07/11/2022)
07/11/2022	200	REDACTION to 198 SEALED MOTION <i>TQ Delta, LLC's First Motion to Compel Discovery from Nokia</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Rudolph Fink IV, # 2 Exhibit 1 - Pages from Letter to Nokia, dated 3.10.22, # 3 Exhibit 2 - Placeholder - Filed Under Seal in its Entirety, # 4 Text of Proposed Order)(Davis, William) (Entered: 07/11/2022)
07/11/2022	 201	Opposed SEALED MOTION <i>to Compel Discovery from TQ Delta</i> by Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Exhibit C, # 4 Exhibit D, # 5 Exhibit E, # 6 Exhibit F, # 7 Exhibit G, # 8 Exhibit H, # 9 Text of Proposed Order)(Stevens, Matthew) (Entered: 07/11/2022)
07/11/2022	202	REDACTION to 199 SEALED MOTION <i>TQ Delta, LLC's First Motion to Compel Deposition from Nokia</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Rudolph Fink IV, # 2 Exhibit A - LinkedIn Profile for Danny Van Bruyssel, # 3 Exhibit B - Placeholder - Filed Under Seal in its Entirety, # 4 Exhibit C - Email, dated 6.10.22, # 5 Text of Proposed Order)(Fink, Rudolph) (Entered: 07/11/2022)
07/12/2022	203	NOTICE by Nokia Corporation, Nokia Solutions, Nokia of America Corporation re 201 Opposed SEALED MOTION <i>to Compel Discovery from TQ Delta Nokia's Notice of Amended and Withdrawn Exhibits to its Sealed Motion to Compel Discovery from TQ Delta</i> (Stevens, Matthew) (Entered: 07/12/2022)



07/12/2022	 204	SEALED ADDITIONAL ATTACHMENTS to Main Document: 201 Opposed SEALED MOTION <i>to Compel Discovery from TQ Delta</i> . Declaration of Katherine Donald (Attachments: # 1 Exhibit Amended Ex. C, # 2 Exhibit Amended Ex. E, # 3 Exhibit Amended Ex. G)(Stevens, Matthew) (Entered: 07/12/2022)
07/12/2022	 205	Opposed SEALED PATENT MOTION <i>FOR LEAVE TO FILE SECOND RESPONSE TO THIRD PARTY PLAINTIFFS NEW ARGUMENTS AND EVIDENCE</i> by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. (Attachments: # 1 Text of Proposed Order)(Smith, Melissa) (Entered: 07/12/2022)
07/12/2022	 206	SEALED PATENT RESPONSE by Broadcom Corporation, Avago Technologies International Sales Pte. Ltd., Broadcom Incorporated to 139 Sealed Sur-Reply to Reply to Response to Motion, THIRD-PARTY DEFENDANTS' SECOND RESPONSE TO THIRD PARTY PLAINTIFF'S NEW ARGUMENTS AND EVIDENCE <i>filed by Broadcom Corporation, Avago Technologies International Sales Pte. Ltd., Broadcom Incorporated.</i> (Smith, Melissa) (Entered: 07/12/2022)
07/12/2022	207	Opposed MOTION to Compel <i>Discovery from Broadcom</i> by Nokia of America Corporation. (Attachments: # 1 Text of Proposed Order, # 2 Affidavit Declaration of Karlee Wroblewski, # 3 Exhibit A, # 4 Exhibit B)(Stevens, Matthew) (Entered: 07/12/2022)
07/12/2022	208	NOTICE of Attorney Appearance by Lana Svetlana Shiferman on behalf of ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Shiferman, Lana) (Entered: 07/12/2022)
07/13/2022	209	REPLY to Response to Motion re 178 Opposed MOTION TO ENTER AMENDED DOCKET CONTROL ORDER <i>filed by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated.</i> (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Exhibit C, # 4 Exhibit D, # 5 Exhibit E, # 6 Exhibit F, # 7 Exhibit G, # 8 Exhibit H)(Smith, Melissa) (Entered: 07/13/2022)
07/13/2022	210	REPLY to Response to Motion re 179 Opposed MOTION TO ENTER AMENDED DISCOVERY ORDER <i>filed by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated.</i> (Smith, Melissa) (Entered: 07/13/2022)
07/13/2022	 211	SEALED MOTION <i>Plaintiff TQ Delta, LLCs and the Broadcom Third-Party Defendants Joint Motion to Sever Nokia Americas Indemnification Claim Against Broadcom</i> by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 07/13/2022)
07/13/2022	212	REDACTION to 201 Opposed SEALED MOTION <i>to Compel Discovery from TQ Delta</i> by Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Text of Proposed Order)(Stevens, Matthew) (Entered: 07/13/2022)
07/14/2022	213	ORDER re 205 Opposed SEALED PATENT MOTION <i>FOR LEAVE TO FILE SECOND RESPONSE TO THIRD PARTY PLAINTIFFS NEW ARGUMENTS AND EVIDENCE</i> filed by Avago Technologies International Sales Pte. Ltd., Broadcom Incorporated, Broadcom Corporation. Signed by District Judge Rodney Gilstrap on 7/13/2022. (nkl,) (Entered: 07/14/2022)




07/14/2022	<u>214</u>	REDACTION to <u>205</u> Opposed SEALED PATENT MOTION <i>FOR LEAVE TO FILE SECOND RESPONSE TO THIRD PARTY PLAINTIFFS NEW ARGUMENTS AND EVIDENCE</i> by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. (Smith, Melissa) (Entered: 07/14/2022)
07/14/2022	<u>215</u>	REDACTION to <u>206</u> Sealed Patent Response to Non-Motion, by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. (Smith, Melissa) (Entered: 07/14/2022)
07/14/2022	<u>216</u>	REDACTION to <u>211</u> SEALED MOTION <i>Plaintiff TQ Delta, LLCs and the Broadcom Third-Party Defendants Joint Motion to Sever Nokia Americas Indemnification Claim Against Broadcom</i> by TQ Delta, LLC. (Attachments: # <u>1</u> Text of Proposed Order)(Davis, William) (Entered: 07/14/2022)
07/14/2022	<u>217</u>	REDACTION to <u>204</u> Sealed Additional Attachments to Main Document, <i>Declaration of Katherine Donald</i> by Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Stevens, Matthew) (Entered: 07/14/2022)
07/18/2022	 <u>218</u>	SEALED RESPONSE to Motion re <u>205</u> Opposed SEALED PATENT MOTION <i>FOR LEAVE TO FILE SECOND RESPONSE TO THIRD PARTY PLAINTIFFS NEW ARGUMENTS AND EVIDENCE</i> filed by Nokia of America Corporation. (Stevens, Matthew) (Entered: 07/18/2022)
07/18/2022	 <u>219</u>	SEALED PATENT MOTION <i>FOR PROTECTIVE ORDER FROM THIRD-PARTY PLAINTIFF'S NOTICE OF 30(B)(6) DEPOSITION</i> by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. (Attachments: # <u>1</u> Exhibit A, # <u>2</u> Text of Proposed Order)(Smith, Melissa) (Entered: 07/18/2022)
07/19/2022	 <u>220</u>	SEALED PATENT RESPONSE to PATENT MOTION re <u>207</u> Opposed MOTION to Compel <i>Discovery from Broadcom filed by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated.</i> (Attachments: # <u>1</u> Text of Proposed Order)(Smith, Melissa) (Entered: 07/19/2022)
07/20/2022	<u>221</u>	REDACTION to <u>218</u> Sealed Response to Motion <i>Broadcom's Second Motion for Leave to File a Second Additional Response</i> by Nokia of America Corporation. (Stevens, Matthew) (Entered: 07/20/2022)
07/20/2022	<u>222</u>	RESPONSE in Opposition re <u>194</u> Opposed MOTION TO ENTER AMENDED PROTECTIVE ORDER <i>filed by Nokia of America Corporation.</i> (Attachments: # <u>1</u> Text of Proposed Order)(Stevens, Matthew) (Entered: 07/20/2022)
07/20/2022	<u>223</u>	REDACTION to <u>219</u> SEALED PATENT MOTION <i>FOR PROTECTIVE ORDER FROM THIRD-PARTY PLAINTIFF'S NOTICE OF 30(B)(6) DEPOSITION</i> by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. (Smith, Melissa) (Entered: 07/20/2022)
07/20/2022	<u>224</u>	REDACTION to <u>220</u> Sealed Patent Response to Sealed Patent Motion, by Avago Technologies International Sales Pte. Ltd., Broadcom Corporation, Broadcom Incorporated. (Smith, Melissa) (Entered: 07/20/2022)
07/20/2022	<u>225</u>	SUR-REPLY to Reply to Response to Motion re <u>178</u> Opposed MOTION TO ENTER AMENDED DOCKET CONTROL ORDER <i>filed by Nokia of America Corporation.</i> (Stevens, Matthew) (Entered: 07/20/2022)

07/20/2022	226	SUR-REPLY to Reply to Response to Motion re 179 Opposed MOTION TO ENTER AMENDED DISCOVERY ORDER <i>filed by Nokia of America Corporation.</i> (Stevens, Matthew) (Entered: 07/20/2022)
07/20/2022	227	RESPONSE to Motion re 194 Opposed MOTION TO ENTER AMENDED PROTECTIVE ORDER <i>filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc..</i> (Attachments: # 1 Text of Proposed Order) (Findlay, Eric) (Entered: 07/20/2022)
07/20/2022	228	RESPONSE in Opposition re 194 Opposed MOTION TO ENTER AMENDED PROTECTIVE ORDER <i>filed by TQ Delta, LLC.</i> (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 07/20/2022)
07/21/2022	229	MEMORANDUM OPINION AND ORDER re 114 SEALED PATENT MOTION <i>TO DISMISS</i> filed by Avago Technologies International Sales Pte. Ltd., Broadcom Incorporated, Broadcom Corporation. (SEVERED CIVIL ACTION 2:22CV274). Signed by District Judge Rodney Gilstrap on 7/21/2022. (nkl,) Modified on 7/21/2022 (nkl,). (Entered: 07/21/2022)
07/21/2022	230	MEMORANDUM OPINION AND ORDER re 152 Opposed MOTION to Stay <i>CommScope Defendants' Opposed Motion for a Partial Stay</i> filed by ARRIS Enterprises, LLC, CommScope Holding Company, Inc., Commscope Inc., ARRIS US Holdings, Inc., ARRIS Technology, Inc., ARRIS Solutions, Inc... Signed by District Judge Rodney Gilstrap on 7/21/2022. (nkl,) (Entered: 07/21/2022)
07/21/2022		(Court only) ***Motions terminated: 194 Opposed MOTION TO ENTER AMENDED PROTECTIVE ORDER filed by Avago Technologies International Sales Pte. Ltd., Broadcom Incorporated, Broadcom Corporation, 179 Opposed MOTION TO ENTER AMENDED DISCOVERY ORDER filed by Avago Technologies International Sales Pte. Ltd., Broadcom Incorporated, Broadcom Corporation, 211 SEALED MOTION <i>Plaintiff TQ Delta, LLCs and the Broadcom Third-Party Defendants Joint Motion to Sever Nokia Americas Indemnification Claim Against Broadcom</i> filed by TQ Delta, LLC, 219 SEALED PATENT MOTION <i>FOR PROTECTIVE ORDER FROM THIRD-PARTY PLAINTIFF'S NOTICE OF 30(B)(6) DEPOSITION</i> filed by Avago Technologies International Sales Pte. Ltd., Broadcom Incorporated, Broadcom Corporation, 207 Opposed MOTION to Compel <i>Discovery from Broadcom</i> filed by Nokia of America Corporation, 205 Opposed SEALED PATENT MOTION <i>FOR LEAVE TO FILE SECOND RESPONSE TO THIRD PARTY PLAINTIFFS NEW ARGUMENTS AND EVIDENCE</i> filed by Avago Technologies International Sales Pte. Ltd., Broadcom Incorporated, Broadcom Corporation, 178 Opposed MOTION TO ENTER AMENDED DOCKET CONTROL ORDER filed by Avago Technologies International Sales Pte. Ltd., Broadcom Incorporated, Broadcom Corporation. (nkl,) (Entered: 07/21/2022)
07/25/2022	 231	SEALED RESPONSE to Motion re 199 SEALED MOTION <i>TQ Delta, LLC's First Motion to Compel Deposition from Nokia</i> filed by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Declaration of Karlee Wroblewski, # 2 Exhibit A - Email, # 3 Exhibit B - Email re deposition, # 4 Exhibit C - email from meet and confer, # 5 Text of Proposed Order)(Stevens, Matthew) (Entered: 07/25/2022)
07/25/2022	 232	SEALED RESPONSE to Motion re 198 SEALED MOTION <i>TQ Delta, LLC's First Motion to Compel Discovery from Nokia</i> filed by Networks Oy, Nokia


		Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Declaration of M. Scott Stevens, # 2 Exhibit A - Email correspondence, # 3 Exhibit B - Dos and Don'ts, # 4 Text of Proposed Order)(Stevens, Matthew) (Entered: 07/25/2022)
07/25/2022	 233	SEALED RESPONSE to Motion re 201 Opposed SEALED MOTION to <i>Compel Discovery from TQ Delta</i> filed by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 07/25/2022)
07/26/2022	234	MOTION to Compel <i>TQ Delta, LLC's First Motion to Compel Discovery from CommScope</i> by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order) (Fink, Rudolph) (Entered: 07/26/2022)
07/27/2022	235	REDACTION to 231 Sealed Response to Motion, to <i>Compel Deposition from Nokia</i> by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Declaration of Karlee Wroblewski, # 2 Exhibit A - redacted in full, # 3 Exhibit B - email re deposition, # 4 Exhibit C - email from meet and confer, # 5 Text of Proposed Order)(Stevens, Matthew) (Entered: 07/27/2022)
07/27/2022	236	REDACTION to 232 Sealed Response to Motion, to <i>Compel Discovery from Nokia</i> by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Declaration of M. Scott Stevens, # 2 Exhibit A - email correspondence, # 3 Exhibit B - redacted in full, # 4 Text of Proposed Order)(Stevens, Matthew) (Entered: 07/27/2022)
07/28/2022	237	REDACTION to 233 Sealed Response to Motion <i>Plaintiff TQ Delta, LLC's Response to Nokia's Motion to Compel Discovery from TQ Delta</i> by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 07/28/2022)
07/28/2022	238	NOTICE of Discovery Disclosure by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation (Stevens, Matthew) (Entered: 07/28/2022)
07/28/2022	 239	SEALED MOTION <i>TQ Delta, LLC's Second Motion to Compel Discovery from CommScope</i> by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Fink, Rudolph) (Entered: 07/28/2022)
08/01/2022	240	ORDER Setting Hearing on Motion 234 MOTION to Compel <i>TQ Delta, LLC's First Motion to Compel Discovery from CommScope</i> , 199 SEALED MOTION <i>TQ Delta, LLC's First Motion to Compel Deposition from Nokia</i> , 239 SEALED MOTION <i>TQ Delta, LLC's Second Motion to Compel Discovery from CommScope</i> , 198 SEALED MOTION <i>TQ Delta, LLC's First Motion to Compel Discovery from Nokia</i> , 201 Opposed SEALED MOTION to <i>Compel Discovery from TQ Delta</i> : Motion Hearing set for 9/1/2022 01:30 PM before District Judge Rodney Gilstrap.. Signed by District Judge Rodney Gilstrap on 7/29/2022. (nkl,) (Entered: 08/01/2022)
08/01/2022	241	NOTICE of Discovery Disclosure by TQ Delta, LLC <i>Second Privilege Log</i> (Davis, William) (Entered: 08/01/2022)
08/01/2022	242	NOTICE by TQ Delta, LLC of Documents for In Camera Review (Davis, William) (Entered: 08/01/2022)
08/01/2022	 243	Opposed SEALED MOTION <i>2nd Opposed Motion for Entry of Order Focusing Patent Claims</i> by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology,

		Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Exhibit C, # 4 Exhibit D, # 5 Exhibit E, # 6 Exhibit F, # 7 Text of Proposed Order) (Stevens, Matthew) (Entered: 08/01/2022)
08/01/2022	244	Opposed MOTION to Expedite <i>Briefing Schedule Regarding Defendants' Second Motion for Entry of Order Focusing Patent Claims</i> by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Text of Proposed Order)(Stevens, Matthew) (Entered: 08/01/2022)
08/01/2022	245	STIPULATION <i>Joint Stipulation Between Plaintiff TQ Delta and the Nokia Defendants Regarding the Production of Certain Documents from TQ Delta</i> by TQ Delta, LLC. (Davis, William) (Entered: 08/01/2022)
08/01/2022	246	STIPULATION <i>Joint Stipulation Between Plaintiff TQ Delta and the CommScope Defendants Regarding the Production of Certain Documents from TQ Delta</i> by TQ Delta, LLC. (Davis, William) (Entered: 08/01/2022)
08/02/2022	247	Joint MOTION to Amend/Correct 62 Scheduling Order,, <i>Joint Motion to Amend Docket Control Order</i> by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 08/02/2022)
08/02/2022	248	RESPONSE in Opposition re 244 Opposed MOTION to Expedite <i>Briefing Schedule Regarding Defendants' Second Motion for Entry of Order Focusing Patent Claims</i> filed by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Fink, Rudolph) (Entered: 08/02/2022)
08/03/2022	249	FIRST AMENDED DOCKET CONTROL ORDER re 247 Motion to Amend/Correct the Docket Control Order. Signed by District Judge Rodney Gilstrap on 8/3/2022. (nkl,) (Entered: 08/03/2022)
08/03/2022	250	REDACTION to 243 Opposed SEALED MOTION <i>2nd Opposed Motion for Entry of Order Focusing Patent Claims</i> by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Exhibit C, # 4 Exhibit D, # 5 Exhibit E, # 6 Exhibit F, # 7 Text of Proposed Order)(Stevens, Matthew) (Entered: 08/03/2022)
08/03/2022	251	REPLY to Response to Motion re 244 Opposed MOTION to Expedite <i>Briefing Schedule Regarding Defendants' Second Motion for Entry of Order Focusing Patent Claims</i> filed by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Stevens, Matthew) (Entered: 08/03/2022)
08/04/2022	252	ORDER denying 244 Motion to Expedite Briefing Schedule. Signed by District Judge Rodney Gilstrap on 8/4/2022. (nkl,) (Entered: 08/04/2022)
08/09/2022	253	RESPONSE in Opposition re 234 MOTION to Compel <i>TQ Delta, LLC's First Motion to Compel Discovery from CommScope</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings,



		<i>Inc., CommScope Holding Company, Inc., Commscope Inc..</i> (Attachments: # 1 Text of Proposed Order)(Findlay, Eric) (Entered: 08/09/2022)
08/12/2022	254	RESPONSE in Opposition re 239 SEALED MOTION <i>TQ Delta, LLC's Second Motion to Compel Discovery from CommScope filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc..</i> (Attachments: # 1 Text of Proposed Order, # 2 Declaration of James D. Shead, # 3 Declaration of Andrew S. Ong, # 4 Exhibit A)(Findlay, Eric) (Entered: 08/12/2022)
08/14/2022	255	MOTION to Compel <i>TQ Delta, LLC's First Motion to Compel Expert Deposition and Disclosure from Nokia</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Rudolph Fink IV, # 2 Exhibit A - Spruyt 26(a)(2)(C) Disclosure, # 3 Text of Proposed Order)(Fink, Rudolph) (Entered: 08/14/2022)
08/15/2022	 256	SEALED RESPONSE to Motion re 243 Opposed SEALED MOTION <i>2nd Opposed Motion for Entry of Order Focusing Patent Claims</i> filed by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Rudolph Fink IV, # 2 Exhibit A, # 3 Exhibit B, # 4 Exhibit C, # 5 Text of Proposed Order)(Davis, William) (Entered: 08/15/2022)
08/16/2022	257	REDACTION to 256 Sealed Response to Motion, <i>TQ Delta, LLCs Response to Defendants Opposed Second Motion for Entry of Order Focusing Patent Claims</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Rudolph Fink IV, # 2 Exhibit A, # 3 Exhibit B, # 4 Exhibit C - Placeholder - Filed Under Seal in its Entirety, # 5 Text of Proposed Order)(Davis, William) (Entered: 08/16/2022)
08/17/2022	258	NOTICE of Attorney Appearance by Deron R Dacus on behalf of Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation (Dacus, Deron) (Entered: 08/17/2022)
08/17/2022	259	NOTICE of Attorney Appearance by Deron R Dacus on behalf of Nokia of America Corporation (Dacus, Deron) (Entered: 08/17/2022)
08/17/2022	260	ORDER Setting Hearing on Motion 255 MOTION to Compel <i>TQ Delta, LLC's First Motion to Compel Expert Deposition and Disclosure from Nokia</i> : Motion Hearing set for 9/1/2022 01:30 PM before District Judge Rodney Gilstrap.. Signed by District Judge Rodney Gilstrap on 8/17/2022. (nkl,) (Entered: 08/17/2022)
08/18/2022	 261	SEALED REPLY to Response to Motion re 243 Opposed SEALED MOTION <i>2nd Opposed Motion for Entry of Order Focusing Patent Claims</i> filed by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Stevens, Matthew) (Entered: 08/18/2022)
08/19/2022	262	REDACTION to 261 Sealed Reply to Response to Motion, <i>Second Opposed Motion for Entry of Order Focusing Patent Claims</i> by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Stevens, Matthew) (Entered: 08/19/2022)

08/19/2022	 263	SEALED MOTION <i>TQ Delta, LLC's Second Motion to Compel Discovery from Nokia</i> by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order) (Fink, Rudolph) (Entered: 08/19/2022)
08/19/2022	264	Opposed MOTION to Extend the Fact Discovery Deadline as to Non-Party AT&T by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 08/19/2022)
08/22/2022	265	Joint MOTION for Leave to Take Certain Depositions After the Close of Fact Discovery by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order) (Davis, William) (Entered: 08/22/2022)
08/22/2022	266	NOTICE of Discovery Disclosure by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation <i>Notice of Discovery Filings</i> (Stevens, Matthew) (Entered: 08/22/2022)
08/23/2022	267	REDACTION to 263 SEALED MOTION <i>TQ Delta, LLC's Second Motion to Compel Discovery from Nokia</i> by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Fink, Rudolph) (Entered: 08/23/2022)
08/24/2022	 268	NOTICE of Attorney Appearance - Pro Hac Vice by Craig P Lytle on behalf of ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. Filing fee \$ 100, receipt number ATXEDC-9086645. (Lytle, Craig) (Additional attachment(s) added on 8/24/2022: # 1 Sealed Attachment) (nkl,). (Entered: 08/24/2022)
08/24/2022	269	SUR-REPLY to Reply to Response to Motion re 243 Opposed SEALED MOTION <i>2nd Opposed Motion for Entry of Order Focusing Patent Claims filed by TQ Delta, LLC</i> . (Davis, William) (Entered: 08/24/2022)
08/24/2022	270	SECOND AMENDED DOCKET CONTROL ORDER re 265 Joint MOTION for Leave to Take Certain Depositions After the Close of Fact Discovery filed by TQ Delta, LLC., Jury Selection set for 1/6/2023 09:00AM before District Judge Rodney Gilstrap. Signed by District Judge Rodney Gilstrap on 8/24/2022. (nkl,) (Entered: 08/25/2022)
08/26/2022	271	ORDER Setting Hearing on Motion 263 SEALED MOTION <i>TQ Delta, LLC's Second Motion to Compel Discovery from Nokia</i> : Motion Hearing set for 9/1/2022 01:30 PM before District Judge Rodney Gilstrap.. Signed by District Judge Rodney Gilstrap on 8/26/2022. (nkl,) (Entered: 08/26/2022)
08/26/2022	272	Opposed MOTION to Stay <i>for a Partial Stay Pending Inter Partes Review of the '835 Patent</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Exhibit Ong Declaration, # 2 Exhibit 1, # 3 Text of Proposed Order)(Findlay, Eric) (Entered: 08/26/2022)
08/27/2022	273	NOTICE of Designation of Mediator, Hon. David Folsom, filed by TQ Delta, LLC. (Davis, William) (Entered: 08/27/2022)
08/28/2022	 274	SEALED RESPONSE to Motion re 263 SEALED MOTION <i>TQ Delta, LLC's Second Motion to Compel Discovery from Nokia</i> filed by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Text of Proposed Order)(Stevens, Matthew) (Entered: 08/28/2022)
08/29/2022	275	RESPONSE in Opposition re 255 MOTION to Compel <i>TQ Delta, LLC's First Motion to Compel Expert Deposition and Disclosure from Nokia</i> filed by


		<i>Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation.</i> (Attachments: # 1 Declaration of M. Scott Stevens, # 2 Exhibit 1 7/20/22 email, # 3 Exhibit 2 8/3/22 email, # 4 Text of Proposed Order) (Stevens, Matthew) (Entered: 08/29/2022)
08/30/2022	276	REDACTION to 274 Sealed Response to Motion, <i>Nokia's Response to TQ Delta's Second Motion to Compel Discovery from Nokia</i> by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Text of Proposed Order)(Stevens, Matthew) (Entered: 08/30/2022)
08/30/2022	277	***FILED IN ERROR*** NOTICE by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation re 243 Opposed SEALED MOTION <i>2nd Opposed Motion for Entry of Order Focusing Patent Claims</i> (Stevens, Matthew) Modified on 8/31/2022 (ch,). (Entered: 08/30/2022)
08/31/2022		***FILED IN ERROR. FILED UNDER THE WRONG EVENT. Document # 277, Notice of Request of Hearing. PLEASE IGNORE.*** (ch,) (Entered: 08/31/2022)
08/31/2022	278	Opposed MOTION for Leave to File <i>Supplemental Brief Regarding Second Opposed Motion for Entry of Order Focusing Patent Claims</i> by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Stevens, Matthew) (Additional attachment(s) added on 8/31/2022: # 1 Text of Proposed Order) (nkl,). (Entered: 08/31/2022)
08/31/2022	279	BRIEF filed <i>Defendants' Supplemental Brief Regarding Second Opposed Motion for Entry of Order Focusing Patent Claims</i> by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Stevens, Matthew) (Entered: 08/31/2022)
08/31/2022	280	STATUS REPORT <i>Joint Report on the Parties' Meet and Confer Regarding Plaintiff's First and Second Motions to Compel (Dkt. Nos. 234 and 239)</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Findlay, Eric) (Entered: 08/31/2022)
08/31/2022	281	First MOTION for Hearing re 243 Opposed SEALED MOTION <i>2nd Opposed Motion for Entry of Order Focusing Patent Claims</i> by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Text of Proposed Order)(Stevens, Matthew) (Entered: 08/31/2022)






09/01/2022	<u>282</u>	NOTICE of Attorney Appearance by Savannah Harman Carnes on behalf of Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation (Carnes, Savannah) (Entered: 09/01/2022)
09/01/2022	<u>283</u>	Minute Entry for proceedings held before District Judge Rodney Gilstrap: Motion Hearing held on 9/1/2022 re <u>198</u> , <u>199</u> , <u>201</u> , <u>234</u> , <u>239</u> , <u>255</u> and <u>263</u> . (Court Reporter Shawn McRoberts, RMR, CRR) (Attachments: # <u>1</u> Attorney Attendance Sheet) (aeb) (Entered: 09/01/2022)
09/06/2022	<u>284</u>	PAPER TRANSCRIPT REQUEST by TQ Delta, LLC for proceedings held on Motion Hearing before Judge Rodney Gilstrap. (Forwarded to Shawn McRoberts on 9/7/22) (Davis, William) Modified on 9/7/2022 (bga). (Entered: 09/06/2022)
09/07/2022	<u>285</u>	PAPER TRANSCRIPT REQUEST by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation for proceedings held on 9/1/2022 before Judge Rodney Gilstrap. (Forwarded to Shawn McRoberts) (Stevens, Matthew) Modified on 9/7/2022 (bga). (Entered: 09/07/2022)
09/07/2022	<u>286</u>	RESPONSE to Motion re <u>278</u> Opposed MOTION for Leave to File <i>Supplemental Brief Regarding Second Opposed Motion for Entry of Order Focusing Patent Claims filed by TQ Delta, LLC</i> . (Attachments: # <u>1</u> Affidavit Declaration of Rudolph Fink IV, # <u>2</u> Exhibit A, # <u>3</u> Exhibit B, # <u>4</u> Text of Proposed Order)(Davis, William) (Entered: 09/07/2022)
09/08/2022	<u>287</u>	NOTICE by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation <i>Notice of Nokia's Unopposed Motion to Withdraw Its Motion to Compel Stout to Comply with Subpoenas and Notice of Nokia's Pending Motion to Compel Out-of-District Subpoenas Against Zyxel Communications, Inc.</i> (Stevens, Matthew) (Entered: 09/08/2022)
09/09/2022	 <u>288</u>	<p>NOTICE OF FILING OF OFFICIAL TRANSCRIPT of Motion Hearing Proceedings held on 09/01/2022 before Judge Rodney Gilstrap. Court Reporter/Transcriber: Shawn McRoberts, Telephone number: (903) 923-8546.</p> <p>NOTICE RE REDACTION OF TRANSCRIPTS: The parties have seven (7) days to file with the Court a Notice of Intent to Request Redaction of this transcript. If no such Notice is filed, the transcript will be made remotely electronically available to the public without redaction after 90 calendar days. The policy is located on our website at www.txed.uscourts.gov</p> <p>Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER.. Motion to Redact due 9/30/2022. Release of Transcript Restriction set for 12/8/2022. (smm,) (Entered: 09/09/2022)</p>
09/09/2022	<u>289</u>	REPLY to Response to Motion re <u>278</u> Opposed MOTION for Leave to File <i>Supplemental Brief Regarding Second Opposed Motion for Entry of Order Focusing Patent Claims filed by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc., Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation</i> . (Stevens, Matthew) (Entered: 09/09/2022)






09/09/2022	290	RESPONSE in Opposition re 272 Opposed MOTION to Stay <i>for a Partial Stay Pending Inter Partes Review of the '835 Patent filed by TQ Delta, LLC.</i> (Attachments: # 1 Text of Proposed Order)(Fink, Rudolph) (Entered: 09/09/2022)
09/14/2022	291	Joint MOTION to Amend/Correct 270 Order,, Terminate Motions,, Scheduling Order, by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 09/14/2022)
09/16/2022	292	SUR-REPLY to Reply to Response to Motion re 278 Opposed MOTION for Leave to File <i>Supplemental Brief Regarding Second Opposed Motion for Entry of Order Focusing Patent Claims filed by TQ Delta, LLC.</i> (Davis, William) (Entered: 09/16/2022)
09/16/2022	293	ORDER granting 264 Opposed MOTION to Extend the Fact Discovery Deadline as to Non-Party AT&T. Signed by District Judge Rodney Gilstrap on 9/16/2022. (ch,) (Entered: 09/16/2022)
09/16/2022	294	ORDER - Telephone Motion Hearing set for 9/20/2022 09:00 AM before District Judge Rodney Gilstrap. Signed by District Judge Rodney Gilstrap on 9/16/2022. (ch,) Modified on 9/19/2022 (klc,). (Entered: 09/16/2022)
09/19/2022	295	REPLY to Response to Motion re 272 Opposed MOTION to Stay <i>for a Partial Stay Pending Inter Partes Review of the '835 Patent filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.</i> (Attachments: # 1 Declaration of Andrew S. Ong, # 2 Exhibit 2, # 3 Exhibit 3) (Findlay, Eric) (Entered: 09/19/2022)
09/19/2022		NOTICE of Telephonic Hearing on Motion 291 Joint MOTION to Amend/Correct 270 Order,, Terminate Motions,, Scheduling Order, :Telephonic Motion Hearing set for 9/20/2022 09:00 AM before District Judge Rodney Gilstrap. (klc,) (Entered: 09/19/2022)
09/20/2022		Minute Entry for proceedings held before District Judge Rodney Gilstrap: Telephonic Motion Hearing held on 9/20/2022 re 291 Joint MOTION to Amend/Correct 270 Order,, Terminate Motions,, Scheduling Order, filed by TQ Delta, LLC. Court opened and counsel were identified. Court took up Dkt. No. 291. Discussion held. Court CARRIED ruling. Court directed the parties to email law clerk, Patrick Clark, by end of business on Friday, September 23, 2022 re: availability for March 20, 2023 trial setting. (Court Reporter Shawn McRoberts, RMR, CRR) (aeb) (Entered: 09/20/2022)
09/26/2022	296	SUR-REPLY to Reply to Response to Motion re 272 Opposed MOTION to Stay <i>for a Partial Stay Pending Inter Partes Review of the '835 Patent filed by TQ Delta, LLC.</i> (Fink, Rudolph) (Entered: 09/26/2022)
09/29/2022	297	NOTICE by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. <i>CommScope Defendants' Notice of Relevant Determinations From Related Proceedings</i> (Findlay, Eric) (Entered: 09/29/2022)
09/30/2022	298	ORDER granting 278 Motion for Leave to File Supplemental Brief Regarding Second Opposed Motion for Entry of Order Focusing Patent Claims. Signed by District Judge Rodney Gilstrap on 9/29/2022. (nkl,) (Entered: 09/30/2022)





10/05/2022	299	THIRD AMENDED DOCKET CONTROL ORDER re 291 Joint MOTION to Amend/Correct 270 Order,, Terminate Motions,, Scheduling Order, filed by TQ Delta, LLC., Pretrial Conference set for 3/1/2023 09:00 AM before District Judge Rodney Gilstrap., Jury Selection set for 3/20/2023 09:00AM before District Judge Rodney Gilstrap., Motions in Limine due by 2/8/2023., Proposed Pretrial Order due by 2/28/2023. Signed by District Judge Rodney Gilstrap on 10/4/2022. (nkl,) (Entered: 10/05/2022)
10/05/2022	300	RESPONSE to 279 Brief, <i>TQ Delta, LLC's Response to Defendants' Supplemental Brief Regarding Second Motion for Entry of Order Focusing Patent Claims filed by TQ Delta, LLC.</i> (Davis, William) (Entered: 10/05/2022)
10/07/2022	 301	Sealed Document. (Stevens, Matthew) (Entered: 10/07/2022)
10/10/2022	302	NOTICE by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation <i>Nokia Defendants Notice of Relevant Determinations from Related Proceedings</i> (Stevens, Matthew) (Entered: 10/10/2022)
10/13/2022	303	ORDER re 198 Sealed Motion to Compel Discovery from Nokia; 199 Sealed Motion to Compel Deposition from Nokia; 201 Sealed Motion to Compel Discovery from TQ Delta; 234 Motion to Compel Discovery from CommScope; 239 Sealed Motion to Compel Discovery from CommScope; 255 Motion to Compel Expert Depositions and Disclosure from Nokia; 263 Sealed Motion to Compel Discovery from Nokia. Signed by District Judge Rodney Gilstrap on 10/13/2022. (nkl,) (Entered: 10/13/2022)
10/25/2022		(Court only) ***Party David Folsom added. (ch,) (Entered: 10/26/2022)
10/25/2022	304	ORDER REFERRING CASE to Mediator Hon. David Folsom, 6002-B Summerfield Drive, Texarkana, Texas 75503, dfolsom@jw.com. The parties are directed to contact the mediator. The Court enters this Order sua sponte. On June 1, 2022, the Court held the claim construction hearing in the above-captioned case between Plaintiff TQ Delta, LLC (TQ Delta) and Defendants CommScope Holding Company, Inc., CommScope Inc., ARRIS US Holdings, Inc., ARRIS Solutions, Inc., ARRIS Technology, Inc., and ARRIS Enterprises, LLC (collectively, CommScope). Signed by District Judge Rodney Gilstrap on 10/25/2022. (ch,) Modified on 10/26/2022 (ch,). (Entered: 10/26/2022)
10/25/2022	305	ORDER REFERRING CASE to Mediator Hon. David Folsom, 6002-B Summerfield Drive, Texarkana, Texas 75503, dfolsom@jw.com. The parties are directed to contact the mediator. Plaintiff TQ Delta, LLC (TQ Delta) and Defendants Nokia Corporation, Nokia Solutions and Networks Oy, and Nokia of America Corporation. Signed by District Judge Rodney Gilstrap on 10/25/2022. (ch,) (Entered: 10/26/2022)
11/04/2022	306	MEMORANDUM OPINION AND ORDER. Signed by District Judge Rodney Gilstrap on 11/4/2022. (ch,) (Entered: 11/04/2022)
11/04/2022	307	ORDER denying 243 Opposed SEALED MOTION 2nd Opposed Motion for Entry of Order Focusing Patent Claims. Signed by District Judge Rodney Gilstrap on 11/4/2022. (ch,) (Entered: 11/04/2022)
11/11/2022	308	Unopposed MOTION to Withdraw as Attorney (<i>Savannah Carnes</i>) by Networks Oy, Nokia Corporation, Nokia Solutions, Nokia of America Corporation. (Attachments: # 1 Text of Proposed Order)(Dacus, Deron) (Entered: 11/11/2022)

11/15/2022	<u>309</u>	ORDER granting <u>308</u> Motion to Withdraw as Attorney. Attorney Savannah Harman Carnes terminated. Signed by District Judge Rodney Gilstrap on 11/14/2022. (nkl,) (Entered: 11/15/2022)
11/21/2022	<u>310</u>	NOTICE of Attorney Appearance by Thomas M Melsheimer on behalf of ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Melsheimer, Thomas) (Entered: 11/21/2022)
11/21/2022	<u>311</u>	NOTICE of Attorney Appearance by Michael Brett Johnson on behalf of ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Johnson, Michael) (Entered: 11/21/2022)
11/21/2022	<u>312</u>	NOTICE of Attorney Appearance by Elizabeth Danielle Thompson Williams on behalf of ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Williams, Elizabeth Danielle) (Entered: 11/21/2022)
11/21/2022	<u>313</u>	NOTICE of Attorney Appearance by Rex Andrew Mann on behalf of ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Mann, Rex) (Entered: 11/21/2022)
11/21/2022	<u>314</u>	NOTICE of Attorney Appearance by William Mitchell Logan on behalf of ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Logan, William) (Entered: 11/21/2022)
11/21/2022	<u>315</u>	NOTICE of Attorney Appearance by Matthew R McCullough on behalf of ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (McCullough, Matthew) (Entered: 11/21/2022)
11/23/2022	<u>316</u>	Joint MOTION to Stay <i>All Deadlines and Notice of Settlement Between TQ Delta, LLC and the Nokia Defendants</i> by TQ Delta, LLC. (Attachments: # <u>1</u> Text of Proposed Order)(Davis, William) (Entered: 11/23/2022)
11/28/2022	<u>317</u>	ORDER granting <u>316</u> Motion to Stay All Deadlines and Notice of Settlement Between TQ Delta, LLC and the Nokia Defendants. Signed by District Judge Rodney Gilstrap on 11/28/2022. (nkl,) (Entered: 11/28/2022)
11/29/2022	<u>318</u>	NOTICE of Attorney Appearance by Marisa Thompson on behalf of ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Thompson, Marisa) (Entered: 11/29/2022)
11/30/2022	<u>319</u>	NOTICE of Attorney Appearance by Emily Wilkinson on behalf of All Defendants (Wilkinson, Emily) (Entered: 11/30/2022)


11/30/2022	<u>320</u>	Joint MOTION to Amend/Correct <u>299</u> Order,, Terminate Motions,, Scheduling Order, by TQ Delta, LLC. (Attachments: # <u>1</u> Text of Proposed Order)(Davis, William) (Entered: 11/30/2022)
12/02/2022	 <u>321</u>	Unopposed SEALED MOTION <i>Unopposed by Plaintiff TQ Delta, LLC for Leave to Formally Serve The Second Supplemental Expert Report of Jonathan D. Putnam on the CommScope Defendants</i> by TQ Delta, LLC. (Attachments: # <u>1</u> Text of Proposed Order)(Davis, William) (Entered: 12/02/2022)
12/02/2022	<u>322</u>	STIPULATION of Dismissal <i>between TQ Delta, LLC and the Nokia Defendants</i> by TQ Delta, LLC. (Attachments: # <u>1</u> Text of Proposed Order) (Davis, William) (Entered: 12/02/2022)
12/05/2022	<u>323</u>	ORDER finding as moot <u>320</u> Motion to Amend Third Amended Docket Control Order. Signed by District Judge Rodney Gilstrap on 12/2/2022. (nkl,) (Entered: 12/05/2022)
12/08/2022	<u>324</u>	ORDER granting <u>322</u> Stipulation of Dismissal as too Nokia Solutions (Consolidated Civil Action 2:21cv309), Nokia of America Corporation (Consolidated Civil Action 2:21cv309), Networks Oy (Consolidated Civil Action 2:21cv309) and Nokia Corporation (Consolidated Civil Action 2:21cv309). Court ACCEPTS AND ACKNOWLEDGES that all claims, causes of action, and counterclaims between TQ Delta and Nokia are DISMISSED WITHOUT PREJUDICE. Signed by District Judge Rodney Gilstrap on 12/8/2022. (ch,) (Entered: 12/08/2022)
12/08/2022	<u>325</u>	ORDER granting <u>321</u> Sealed Motion for Leave to Formally Serve the Second Supplemental Expert Report of Jonathan D. Putnam on the CommScope Defendants. Signed by District Judge Rodney Gilstrap on 12/8/2022. (nkl,) (Entered: 12/08/2022)
12/09/2022	<u>326</u>	NOTICE of Attorney Appearance by Matthew Scott Stevens on behalf of ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Stevens, Matthew) (Entered: 12/09/2022)
12/09/2022	<u>327</u>	NOTICE of Attorney Appearance by Nicholas Christopher Marais on behalf of ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Marais, Nicholas) (Entered: 12/09/2022)
12/09/2022	<u>328</u>	NOTICE of Attorney Appearance by Karlee Wroblewski on behalf of ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Wroblewski, Karlee) (Entered: 12/09/2022)
12/09/2022	<u>329</u>	NOTICE of Attorney Appearance by Kirk T Bradley on behalf of ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Bradley, Kirk) (Entered: 12/09/2022)
12/09/2022	<u>330</u>	NOTICE of Attorney Appearance by Ross Ritter Barton on behalf of ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc.,







		CommScope Holding Company, Inc., Commscope Inc. (Barton, Ross) (Entered: 12/09/2022)
12/09/2022	<u>331</u>	NOTICE of Attorney Appearance by Stephen Richard Lareau on behalf of ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Lareau, Stephen) (Entered: 12/09/2022)
12/09/2022	<u>332</u>	NOTICE of Attorney Appearance by Mary Isabelle Riolo on behalf of ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Riolo, Mary) (Entered: 12/09/2022)
12/09/2022	<u>333</u>	NOTICE of Attorney Appearance by Erin Beaton on behalf of ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Beaton, Erin) (Entered: 12/09/2022)
12/12/2022	<u>334</u>	NOTICE of Attorney Appearance by Katherine Grayce Rubschlager on behalf of ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Rubschlager, Katherine) (Entered: 12/12/2022)
12/14/2022	 <u>335</u>	SEALED MOTION <i>FOR SUMMARY JUDGMENT OF NO BREACH OF ANY FRAND OBLIGATIONS (FAMILY 3 AND FAMILY 9A NON-ESSENTIAL PATENTS)</i> by TQ Delta, LLC. (Attachments: # <u>1</u> Declaration of Ty Wilson, # <u>2</u> Exhibit A, # <u>3</u> Exhibit B, # <u>4</u> Exhibit C, # <u>5</u> Exhibit D, # <u>6</u> Exhibit E, # <u>7</u> Text of Proposed Order)(Davis, William) (Entered: 12/14/2022)
12/14/2022	 <u>336</u>	Opposed SEALED MOTION <i>CommScope Defendants' Motion for Summary Judgment of Non-Infringement of the Family 3 Patents</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # <u>1</u> Text of Proposed Order, # <u>2</u> Declaration of Andrew S. Ong, # <u>3</u> Exhibit A, # <u>4</u> Exhibit B, # <u>5</u> Exhibit C, # <u>6</u> Exhibit D, # <u>7</u> Exhibit E, # <u>8</u> Exhibit F, # <u>9</u> Exhibit G, # <u>10</u> Exhibit H)(Findlay, Eric) (Entered: 12/14/2022)
12/14/2022	 <u>337</u>	Opposed SEALED MOTION <i>TQ Delta, LLC's Motion to Strike the Expert Testimony of Dr. George A. Zimmerman, Dr. Richard Wesel, Dr. Bruce McNair, and Dr. Niel Ransom</i> by TQ Delta, LLC. (Attachments: # <u>1</u> Exhibit 1, # <u>2</u> Exhibit 2, # <u>3</u> Exhibit 3, # <u>4</u> Exhibit 4, # <u>5</u> Exhibit 5, # <u>6</u> Exhibit 6, # <u>7</u> Exhibit 7, # <u>8</u> Exhibit 8, # <u>9</u> Exhibit 9, # <u>10</u> Text of Proposed Order)(Hurt, Christian) (Entered: 12/14/2022)
12/14/2022	 <u>338</u>	Opposed SEALED MOTION <i>Plaintiff TQ Delta, LLCs Motion to Strike the Invalidity Report of Defendants Expert, Mark Lanning</i> by TQ Delta, LLC. (Attachments: # <u>1</u> Affidavit Chiplunkar Declaration, # <u>2</u> Exhibit A, # <u>3</u> Exhibit B, # <u>4</u> Exhibit C, # <u>5</u> Exhibit D, # <u>6</u> Exhibit E, # <u>7</u> Text of Proposed Order) (Davis, William) (Entered: 12/14/2022)
12/14/2022	 <u>339</u>	Opposed SEALED MOTION <i>Plaintiff TQ Delta, LLC's Motion to Strike Portions of the Non-Infringement Report and Opinions of Defendants Expert Dr. Leonard J. Cimini, Jr.</i> by TQ Delta, LLC. (Attachments: # <u>1</u> Affidavit





		Chiplunkar Declaration, # 2 Exhibit A, # 3 Exhibit B, # 4 Exhibit C, # 5 Text of Proposed Order)(Davis, William) (Entered: 12/14/2022)
12/14/2022	 340	Opposed SEALED MOTION <i>CommScope Defendants' Motion for Partial Summary Judgment to Limit Damages Based on 35 U.S.C. § 286</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order, # 2 Declaration of Lana Shiferman, # 3 Exhibit A, # 4 Exhibit B, # 5 Exhibit C, # 6 Exhibit D, # 7 Exhibit E, # 8 Exhibit F, # 9 Exhibit G, # 10 Exhibit H, # 11 Exhibit I, # 12 Exhibit J, # 13 Exhibit K, # 14 Exhibit L, # 15 Exhibit M, # 16 Exhibit N, # 17 Exhibit O) (Findlay, Eric) (Entered: 12/14/2022)
12/14/2022	 341	Opposed SEALED MOTION <i>Plaintiff TQ Delta, LLC's Motion to Strike Portions of the Non-Infringement Report and Opinions of Defendants' Expert Dr. Naofal Al-Dhahir</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Chiplunkar Declaration, # 2 Exhibit A, # 3 Exhibit B, # 4 Exhibit C, # 5 Exhibit D, # 6 Text of Proposed Order)(Davis, William) (Entered: 12/14/2022)
12/14/2022	342	Opposed MOTION to Exclude Certain Unreliable Opinions of Plaintiff's Expert Dr. Vijay Madiseti by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order, # 2 Declaration of Andrew S. Ong, # 3 Exhibit 1, # 4 Exhibit 2, # 5 Exhibit 3, # 6 Exhibit 4)(Findlay, Eric) (Entered: 12/14/2022)
12/14/2022	343	MOTION for Summary Judgment <i>Partial Summary Judgment Regarding Prior Art Status</i> by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Exhibit C, # 4 Exhibit D, # 5 Exhibit E, # 6 Exhibit F, # 7 Exhibit G, # 8 Exhibit H, # 9 Exhibit I, # 10 Exhibit J, # 11 Exhibit K, # 12 Exhibit L, # 13 Declaration - Ong, # 14 Text of Proposed Order)(Findlay, Eric) (Entered: 12/14/2022)
12/14/2022	 344	SEALED MOTION <i>to Exclude Portions of the Expert Testimony of Jonathan Putnam and Todor Cooklev Under Fed. R. Evid. 702 and Daubert</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Declaration - Shiferman, # 4 Text of Proposed Order)(Findlay, Eric) (Entered: 12/14/2022)
12/14/2022	 345	Opposed SEALED MOTION <i>TQ Delta, LLC's Motion to Strike Portions of the Expert Report of Stephen L. Becker, Ph.D.</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Edward Chin, # 2 Exhibit 1, # 3 Exhibit 2, # 4 Exhibit 3, # 5 Text of Proposed Order)(Davis, William) (Entered: 12/14/2022)
12/14/2022	 346	Opposed SEALED MOTION <i>CommScope Defendants' Motion to Exclude Expert Testimony of Jonathan Putnam, Ph.D. That Is Inconsistent With Legal Precedent</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order, # 2 Declaration of Andrew S. Ong, # 3 Exhibit A, # 4 Exhibit B, # 5 Exhibit C, # 6 Exhibit D, # 7 Exhibit E, # 8 Exhibit F, # 9 Exhibit G, # 10 Exhibit H, # 11 Exhibit I, # 12 Exhibit J)(Findlay, Eric) (Entered: 12/14/2022)


12/14/2022	 347	Opposed SEALED MOTION <i>FOR SUMMARY JUDGMENT DIRECTED TO PATENT FAMILIES 1 AND 10</i> by TQ Delta, LLC. (Attachments: # 1 Declaration of Rajendra A. Chiplunkar, # 2 Exhibit A, # 3 Exhibit B, # 4 Exhibit C, # 5 Exhibit D, # 6 Exhibit E, # 7 Exhibit F, # 8 Exhibit G, # 9 Exhibit H, # 10 Exhibit I, # 11 Exhibit J, # 12 Exhibit K, # 13 Exhibit L, # 14 Exhibit M, # 15 Exhibit N, # 16 Exhibit O, # 17 Exhibit P, # 18 Exhibit Q, # 19 Text of Proposed Order)(Davis, William) (Entered: 12/14/2022)
12/14/2022	 348	Opposed SEALED MOTION <i>TQ Delta, LLC's Motion for Summary Judgment on Families 2, 3, 6 and 9B</i> by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Fink, Rudolph) (Entered: 12/14/2022)
12/15/2022	 349	Opposed SEALED MOTION <i>FOR LEAVE TO FORMALLY SERVE THE FIRST SUPPLEMENTAL EXPERT REPORT OF JONATHAN D. PUTNAM</i> by TQ Delta, LLC. (Attachments: # 1 Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3, # 4 Exhibit 4, # 5 Exhibit 5, # 6 Exhibit 6, # 7 Exhibit 7, # 8 Exhibit 8, # 9 Text of Proposed Order)(Davis, William) (Entered: 12/15/2022)
12/15/2022	 350	SEALED ADDITIONAL ATTACHMENTS to Main Document: 348 Opposed SEALED MOTION <i>TQ Delta, LLC's Motion for Summary Judgment on Families 2, 3, 6 and 9B</i> . (Attachments: # 1 Affidavit Fink Declaration, # 2 Exhibit 1, # 3 Exhibit 2, # 4 Exhibit 3, # 5 Exhibit 4, # 6 Exhibit 5, # 7 Exhibit 6, # 8 Exhibit 7, # 9 Exhibit 8, # 10 Exhibit 9, # 11 Exhibit 10, # 12 Exhibit 11, # 13 Exhibit 12, # 14 Exhibit 13, # 15 Exhibit 14, # 16 Exhibit 15, # 17 Exhibit 16, # 18 Exhibit 17, # 19 Exhibit 18, # 20 Exhibit 19, # 21 Exhibit 20, # 22 Exhibit 21, # 23 Exhibit 22, # 24 Exhibit 23, # 25 Exhibit 24)(Fink, Rudolph) (Entered: 12/15/2022)
12/21/2022	351	REDACTION to 346 Opposed SEALED MOTION <i>CommScope Defendants' Motion to Exclude Expert Testimony of Jonathan Putnam, Ph.D. That Is Inconsistent With Legal Precedent</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order, # 2 Declaration of Andrew S. Ong, # 3 Exhibit A - Redacted in Full, # 4 Exhibit B - Redacted in Full, # 5 Exhibit C - Redacted in Full, # 6 Exhibit D - Partially Redacted, # 7 Exhibit E - Redacted in Full, # 8 Exhibit F - Partially Redacted, # 9 Exhibit G, # 10 Exhibit H - Redacted in Full, # 11 Exhibit I - Redacted in Full, # 12 Exhibit J - Redacted in Full) (Findlay, Eric) (Entered: 12/21/2022)
12/21/2022	352	REDACTION to 344 SEALED MOTION <i>to Exclude Portions of the Expert Testimony of Jonathan Putnam and Todor Cooklev Under Fed. R. Evid. 702 and Daubert</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order, # 2 Declaration of Lana Shiferman, # 3 Exhibit A - Partially Redacted, # 4 Exhibit B - Partially Redacted)(Findlay, Eric) (Entered: 12/21/2022)
12/21/2022	353	REDACTION to 340 Opposed SEALED MOTION <i>CommScope Defendants' Motion for Partial Summary Judgment to Limit Damages Based on 35 U.S.C. § 286</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order, # 2 Declaration of Lana Shiferman, # 3 Exhibit A - Redacted in Full, # 4 Exhibit B - Redacted in Full, # 5 Exhibit C - Partially Redacted, # 6 Exhibit D, # 7 Exhibit E, # 8 Exhibit F - Redacted in Full, # 9 Exhibit G, # 10 Exhibit H -

		Redacted in Full, # 11 Exhibit I - Redacted in Full, # 12 Exhibit J - Redacted in Full, # 13 Exhibit K - Redacted in Full, # 14 Exhibit L - Redacted in Full, # 15 Exhibit M, # 16 Exhibit N - Redacted in Full, # 17 Exhibit O - Redacted in Full)(Findlay, Eric) (Entered: 12/21/2022)
12/21/2022	354	REDACTION to 336 Opposed SEALED MOTION <i>CommScope Defendants' Motion for Summary Judgment of Non-Infringement of the Family 3 Patents</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order, # 2 Declaration of Andrew S. Ong, # 3 Exhibit A, # 4 Exhibit B, # 5 Exhibit C, # 6 Exhibit D - Partially Redacted, # 7 Exhibit E, # 8 Exhibit F - Redacted in Full, # 9 Exhibit G - Redacted in Full, # 10 Exhibit H - Partially Redacted)(Findlay, Eric) (Entered: 12/21/2022)
12/21/2022	355	REDACTION to 335 SEALED MOTION <i>FOR SUMMARY JUDGMENT OF NO BREACH OF ANY FRAND OBLIGATIONS (FAMILY 3 AND FAMILY 9A NON-ESSENTIAL PATENTS)</i> by TQ Delta, LLC. (Attachments: # 1 Declaration of Ty Wilson, # 2 Exhibit A, # 3 Exhibit B, # 4 Exhibit C, # 5 Exhibit D, # 6 Exhibit E, # 7 Text of Proposed Order)(Davis, William) (Entered: 12/21/2022)
12/21/2022	356	REDACTION to 337 Opposed SEALED MOTION <i>TQ Delta, LLC's Motion to Strike the Expert Testimony of Dr. George A. Zimmerman, Dr. Richard Wesel, Dr. Bruce McNair, and Dr. Niel Ransom</i> by TQ Delta, LLC. (Attachments: # 1 Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3, # 4 Exhibit 4, # 5 Exhibit 5, # 6 Exhibit 6, # 7 Exhibit 7, # 8 Exhibit 8, # 9 Exhibit 9, # 10 Text of Proposed Order)(Davis, William) (Entered: 12/21/2022)
12/21/2022	357	REDACTION to 345 Opposed SEALED MOTION <i>TQ Delta, LLC's Motion to Strike Portions of the Expert Report of Stephen L. Becker, Ph.D.</i> by TQ Delta, LLC. (Attachments: # 1 Declaration of Edward Chin, # 2 Exhibit 1, # 3 Exhibit 2, # 4 Exhibit 3, # 5 Text of Proposed Order)(Davis, William) (Entered: 12/21/2022)
12/21/2022	358	REDACTION to 348 Opposed SEALED MOTION <i>TQ Delta, LLC's Motion for Summary Judgment on Families 2, 3, 6 and 9B</i> by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 12/21/2022)
12/21/2022	359	REDACTION to 349 Opposed SEALED MOTION <i>FOR LEAVE TO FORMALLY SERVE THE FIRST SUPPLEMENTAL EXPERT REPORT OF JONATHAN D. PUTNAM</i> by TQ Delta, LLC. (Attachments: # 1 Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3, # 4 Exhibit 4, # 5 Exhibit 5, # 6 Exhibit 6, # 7 Exhibit 7, # 8 Exhibit 8, # 9 Text of Proposed Order)(Davis, William) (Entered: 12/21/2022)
12/21/2022	360	REDACTION to 350 Sealed Additional Attachments to Main Document,, by TQ Delta, LLC. (Attachments: # 1 Declaration of Rudolph Fink IV, # 2 Exhibit 1, # 3 Exhibit 2, # 4 Exhibit 3, # 5 Exhibit 4, # 6 Exhibit 5, # 7 Exhibit 6, # 8 Exhibit 7, # 9 Exhibit 8, # 10 Exhibit 9, # 11 Exhibit 10, # 12 Exhibit 11, # 13 Exhibit 12, # 14 Exhibit 13, # 15 Exhibit 14, # 16 Exhibit 15, # 17 Exhibit 16, # 18 Exhibit 17, # 19 Exhibit 18, # 20 Exhibit 19, # 21 Exhibit 20, # 22 Exhibit 21, # 23 Exhibit 22, # 24 Exhibit 23, # 25 Exhibit 24)(Davis, William) (Entered: 12/21/2022)






12/21/2022	361	REDACTION to 338 Opposed SEALED MOTION <i>Plaintiff TQ Delta, LLC's Motion to Strike the Invalidity Report of Defendants Expert, Mark Lanning</i> by TQ Delta, LLC. (Attachments: # 1 Declaration of Rajendra A. Chiplunkar, # 2 Exhibit A, # 3 Exhibit B, # 4 Exhibit C, # 5 Exhibit D, # 6 Exhibit E, # 7 Text of Proposed Order)(Davis, William) (Entered: 12/21/2022)
12/23/2022	362	REDACTION to 339 Opposed SEALED MOTION <i>Plaintiff TQ Delta, LLC's Motion to Strike Portions of the Non-Infringement Report and Opinions of Defendants Expert Dr. Leonard J. Cimini, Jr.</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Chiplunkar Declaration, # 2 Exhibit A - Placeholder - Filed Under Seal in its Entirety, # 3 Exhibit B, # 4 Exhibit C, # 5 Text of Proposed Order)(Davis, William) (Entered: 12/23/2022)
12/23/2022	363	REDACTION to 341 Opposed SEALED MOTION <i>Plaintiff TQ Delta, LLC's Motion to Strike Portions of the Non-Infringement Report and Opinions of Defendants' Expert Dr. Naofal Al-Dhahir</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Chiplunkar Declaration, # 2 Exhibit A - Placeholder - Filed Under Seal in its Entirety, # 3 Exhibit B, # 4 Exhibit C, # 5 Exhibit D - Placeholder - Filed Under Seal in its Entirety, # 6 Text of Proposed Order)(Davis, William) (Entered: 12/23/2022)
12/23/2022	364	REDACTION to 347 Opposed SEALED MOTION <i>FOR SUMMARY JUDGMENT DIRECTED TO PATENT FAMILIES 1 AND 10</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Chiplunkar Declaration, # 2 Exhibit A, # 3 Exhibit B, # 4 Exhibit C, # 5 Exhibit D through N - Placeholder - Filed Under Seal in their Entirety, # 6 Exhibit O, # 7 Exhibit P, # 8 Exhibit Q - Placeholder - Filed Under Seal in its Entirety, # 9 Text of Proposed Order)(Davis, William) (Entered: 12/23/2022)
12/23/2022	365	Unopposed MOTION for Extension of Time to File Response/Reply as to 349 Opposed SEALED MOTION <i>FOR LEAVE TO FORMALLY SERVE THE FIRST SUPPLEMENTAL EXPERT REPORT OF JONATHAN D. PUTNAM</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order)(Findlay, Eric) (Entered: 12/23/2022)
12/27/2022	366	Unopposed MOTION to Withdraw as Attorney by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order Granting Defendants' Unopposed Motion to Withdraw as Counsel) (Melsheimer, Thomas) (Entered: 12/27/2022)
01/05/2023		(Court only) ***Motions terminated: 281 First MOTION for Hearing re 243 Opposed SEALED MOTION <i>2nd Opposed Motion for Entry of Order Focusing Patent Claims</i> filed by CommScope Holding Company, Inc., Nokia Corporation, Nokia of America Corporation, ARRIS US Holdings, Inc., ARRIS Technology, Inc., ARRIS Solutions, Inc., ARRIS International Limited, ARRIS Enterprises, LLC, Networks Oy, Commscope Inc., Nokia Solutions, ARRIS Global Ltd.. (klc,) (Entered: 01/05/2023)
01/05/2023	367	ORDER granting 365 Unopposed MOTION for Extension of Time to File Response/Reply as to 349 Opposed SEALED MOTION <i>FOR LEAVE TO FORMALLY SERVE THE FIRST SUPPLEMENTAL EXPERT REPORT OF JONATHAN D. PUTNAM</i> , 349 Opposed SEALED MOTION <i>FOR LEAVE</i>






		<i>TO FORMALLY SERVE THE FIRST SUPPLEMENTAL EXPERT REPORT OF JONATHAN D. PUTNAM</i> Responses due by 1/6/2023 Replies due by 1/17/2023.. Signed by District Judge Rodney Gilstrap on 1/5/2023. (ch,) (Entered: 01/05/2023)
01/05/2023	<u>368</u>	ORDER granting <u>366</u> Motion to Withdraw as Attorney. Attorney Rex Andrew Mann; Matthew R McCullough; Thomas M Melsheimer; Marisa Thompson; Emily Wilkinson; Elizabeth Danielle Thompson Williams; Michael Brett Johnson and William Mitchell Logan terminated. Signed by District Judge Rodney Gilstrap on 1/5/2023. (ch,) (Entered: 01/05/2023)
01/06/2023	 <u>369</u>	SEALED RESPONSE to Motion re <u>336</u> Opposed SEALED MOTION <i>CommScope Defendants' Motion for Summary Judgment of Non-Infringement of the Family 3 Patents</i> filed by TQ Delta, LLC. (Attachments: # <u>1</u> Exhibit 1, # <u>2</u> Exhibit 2, # <u>3</u> Exhibit 3, # <u>4</u> Exhibit 4, # <u>5</u> Exhibit 5, # <u>6</u> Exhibit 6, # <u>7</u> Exhibit 7, # <u>8</u> Exhibit 8, # <u>9</u> Exhibit 9, # <u>10</u> Text of Proposed Order)(Hurt, Christian) (Entered: 01/06/2023)
01/06/2023	 <u>370</u>	SEALED RESPONSE to Motion re <u>340</u> Opposed SEALED MOTION <i>CommScope Defendants' Motion for Partial Summary Judgment to Limit Damages Based on 35 U.S.C. § 286</i> filed by TQ Delta, LLC. (Attachments: # <u>1</u> Exhibit 1, # <u>2</u> Exhibit 2, # <u>3</u> Exhibit 3, # <u>4</u> Exhibit 4, # <u>5</u> Exhibit 5, # <u>6</u> Exhibit 6, # <u>7</u> Exhibit 7, # <u>8</u> Exhibit 8, # <u>9</u> Exhibit 9, # <u>10</u> Exhibit 10, # <u>11</u> Text of Proposed Order)(Hurt, Christian) (Entered: 01/06/2023)
01/06/2023	 <u>371</u>	SEALED RESPONSE to Motion re <u>349</u> Opposed SEALED MOTION <i>FOR LEAVE TO FORMALLY SERVE THE FIRST SUPPLEMENTAL EXPERT REPORT OF JONATHAN D. PUTNAM</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Attachments: # <u>1</u> Text of Proposed Order, # <u>2</u> Declaration of Andrew S. Ong, # <u>3</u> Exhibit A, # <u>4</u> Exhibit B, # <u>5</u> Exhibit C, # <u>6</u> Exhibit D, # <u>7</u> Exhibit E, # <u>8</u> Exhibit F)(Findlay, Eric) (Entered: 01/06/2023)
01/06/2023	 <u>372</u>	SEALED RESPONSE to Motion re <u>344</u> SEALED MOTION <i>to Exclude Portions of the Expert Testimony of Jonathan Putnam and Todor Cooklev Under Fed. R. Evid. 702 and Daubert</i> filed by TQ Delta, LLC. (Attachments: # <u>1</u> Affidavit Fink Declaration, # <u>2</u> Exhibit 1, # <u>3</u> Exhibit 2, # <u>4</u> Exhibit 3, # <u>5</u> Exhibit 4, # <u>6</u> Exhibit 5, # <u>7</u> Exhibit 6, # <u>8</u> Text of Proposed Order)(Fink, Rudolph) (Entered: 01/06/2023)
01/06/2023	 <u>373</u>	SEALED RESPONSE to Motion re <u>339</u> Opposed SEALED MOTION <i>Plaintiff TQ Delta, LLC's Motion to Strike Portions of the Non-Infringement Report and Opinions of Defendants Expert Dr. Leonard J. Cimini, Jr.</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Attachments: # <u>1</u> Text of Proposed Order, # <u>2</u> Declaration of Andrew S. Ong, # <u>3</u> Exhibit 1, # <u>4</u> Exhibit 2)(Findlay, Eric) (Entered: 01/06/2023)
01/06/2023	 <u>374</u>	SEALED RESPONSE to Motion re <u>335</u> SEALED MOTION <i>FOR SUMMARY JUDGMENT OF NO BREACH OF ANY FRAND OBLIGATIONS (FAMILY 3 AND FAMILY 9A NON-ESSENTIAL PATENTS)</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Attachments: # <u>1</u> Text of Proposed Order, # <u>2</u> Declaration of Andrew S. Ong, # <u>3</u> Exhibit F, # <u>4</u> Exhibit G)(Findlay, Eric) (Entered: 01/06/2023)




01/06/2023	<u>375</u>	RESPONSE in Opposition re <u>343</u> MOTION for Summary Judgment <i>Partial Summary Judgment Regarding Prior Art Status filed by TQ Delta, LLC.</i> (Attachments: # <u>1</u> Affidavit Wilson Declaration, # <u>2</u> Exhibit A, # <u>3</u> Exhibit B, # <u>4</u> Exhibit C, # <u>5</u> Exhibit D, # <u>6</u> Text of Proposed Order)(Davis, William) (Entered: 01/06/2023)
01/06/2023	<u>376</u>	RESPONSE in Opposition re <u>338</u> Opposed SEALED MOTION <i>Plaintiff TQ Delta, LLCs Motion to Strike the Invalidity Report of Defendants Expert, Mark Lanning filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc..</i> (Attachments: # <u>1</u> Exhibit F, # <u>2</u> Exhibit G, # <u>3</u> Exhibit H, # <u>4</u> Exhibit I, # <u>5</u> Exhibit J, # <u>6</u> Exhibit K, # <u>7</u> Declaration - Ong, # <u>8</u> Text of Proposed Order)(Findlay, Eric) (Entered: 01/06/2023)
01/06/2023	 <u>377</u>	SEALED RESPONSE to Motion re <u>337</u> Opposed SEALED MOTION <i>TQ Delta, LLC's Motion to Strike the Expert Testimony of Dr. George A. Zimmerman, Dr. Richard Wesel, Dr. Bruce McNair, and Dr. Niel Ransom</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Attachments: # <u>1</u> Text of Proposed Order, # <u>2</u> Declaration of Andrew S. Ong, # <u>3</u> Exhibit 10, # <u>4</u> Exhibit 11, # <u>5</u> Exhibit 12, # <u>6</u> Exhibit 13, # <u>7</u> Exhibit 14, # <u>8</u> Exhibit 15)(Findlay, Eric) (Entered: 01/06/2023)
01/06/2023	<u>378</u>	RESPONSE in Opposition re <u>348</u> Opposed SEALED MOTION <i>TQ Delta, LLC's Motion for Summary Judgment on Families 2, 3, 6 and 9B</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # <u>1</u> Exhibit 1, # <u>2</u> Exhibit 2, # <u>3</u> Exhibit 3, # <u>4</u> Exhibit 4, # <u>5</u> Exhibit 5, # <u>6</u> Declaration of Ong, # <u>7</u> Text of Proposed Order)(Findlay, Eric) (Entered: 01/06/2023)
01/06/2023	 <u>379</u>	SEALED RESPONSE to Motion re <u>341</u> Opposed SEALED MOTION <i>Plaintiff TQ Delta, LLC's Motion to Strike Portions of the Non-Infringement Report and Opinions of Defendants' Expert Dr. Naofal Al-Dhahir</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Attachments: # <u>1</u> Text of Proposed Order, # <u>2</u> Declaration of Andrew S. Ong, # <u>3</u> Exhibit E, # <u>4</u> Exhibit F)(Findlay, Eric) (Entered: 01/06/2023)
01/06/2023	 <u>380</u>	SEALED RESPONSE to Motion re <u>347</u> Opposed SEALED MOTION <i>FOR SUMMARY JUDGMENT DIRECTED TO PATENT FAMILIES 1 AND 10</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Attachments: # <u>1</u> Text of Proposed Order, # <u>2</u> Declaration of Andrew S. Ong, # <u>3</u> Exhibit R, # <u>4</u> Exhibit S, # <u>5</u> Exhibit T, # <u>6</u> Exhibit U, # <u>7</u> Exhibit V, # <u>8</u> Exhibit W, # <u>9</u> Exhibit X, # <u>10</u> Exhibit Y, # <u>11</u> Exhibit Z, # <u>12</u> Exhibit AA, # <u>13</u> Exhibit BB)(Findlay, Eric) (Entered: 01/06/2023)
01/06/2023	<u>381</u>	RESPONSE in Opposition re <u>342</u> Opposed MOTION to Exclude Certain Unreliable Opinions of Plaintiff's Expert Dr. Vijay Madiseti <i>filed by TQ Delta, LLC.</i> (Attachments: # <u>1</u> Text of Proposed Order)(Davis, William) (Entered: 01/06/2023)
01/06/2023	 <u>382</u>	SEALED RESPONSE to Motion re <u>345</u> Opposed SEALED MOTION <i>TQ Delta, LLC's Motion to Strike Portions of the Expert Report of Stephen L. Becker, Ph.D.</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc.,






		ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Attachments: # 1 Text of Proposed Order, # 2 Declaration of Lana Shiferman, # 3 Exhibit A, # 4 Exhibit B, # 5 Exhibit C, # 6 Exhibit D, # 7 Exhibit E, # 8 Exhibit F, # 9 Exhibit G, # 10 Exhibit H, # 11 Exhibit I, # 12 Exhibit J, # 13 Exhibit K, # 14 Exhibit L, # 15 Exhibit M, # 16 Exhibit N, # 17 Exhibit O)(Findlay, Eric) (Entered: 01/06/2023)
01/06/2023	 383	SEALED RESPONSE to Motion re 346 Opposed SEALED MOTION <i>CommScope Defendants' Motion to Exclude Expert Testimony of Jonathan Putnam, Ph.D. That Is Inconsistent With Legal Precedent</i> filed by TQ Delta, LLC. (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Exhibit C, # 4 Exhibit D, # 5 Exhibit E, # 6 Text of Proposed Order)(Davis, William) (Entered: 01/06/2023)
01/13/2023	384	REDACTION to 371 Sealed Response to Motion,, <i>FOR LEAVE TO FORMALLY SERVE THE FIRST SUPPLEMENTAL EXPERT REPORT OF JONATHAN D. PUTNAM</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order, # 2 Declaration of Andrew S. Ong, # 3 Exhibit A, # 4 Exhibit B - Redacted in Full, # 5 Exhibit C, # 6 Exhibit D - Redacted in Full, # 7 Exhibit E - Redacted in Full, # 8 Exhibit F)(Findlay, Eric) (Entered: 01/13/2023)
01/13/2023	385	REDACTION to 369 Sealed Response to Motion, <i>TQ Delta, LLC's Response to CommScope's Motion for Summary Judgement of Non-Infringement of the Family 3 Patents</i> by TQ Delta, LLC. (Attachments: # 1 Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3, # 4 Exhibit 4, # 5 Exhibit 5, # 6 Exhibit 6, # 7 Exhibit 7, # 8 Exhibit 8 - Placeholder - Filed Under Seal in its Entirety, # 9 Exhibit 9, # 10 Text of Proposed Order)(Hurt, Christian) (Entered: 01/13/2023)
01/13/2023	386	REDACTION to 370 Sealed Response to Motion, <i>TQ Delta, LLC's Response to CommScope's Motion for Partial Summary Judgment to Limit Damages Based on 35 U.S.C. § 286</i> by TQ Delta, LLC. (Attachments: # 1 Exhibit 1 -10 - Placeholder - Filed Under Seal in Their Entirety, # 2 Text of Proposed Order) (Hurt, Christian) (Entered: 01/13/2023)
01/13/2023	387	REDACTION to 382 Sealed Response to Motion,, by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order, # 2 Declaration of Lana Shiferman, # 3 Exhibit A - Redacted in Full, # 4 Exhibit B - Redacted in Full, # 5 Exhibit C - Redacted in Full, # 6 Exhibit D - Redacted in Full, # 7 Exhibit E - Redacted in Full, # 8 Exhibit F - Redacted in Full, # 9 Exhibit G - Redacted in Full, # 10 Exhibit H - Redacted in Full, # 11 Exhibit I - Redacted in Full, # 12 Exhibit J - Redacted in Full, # 13 Exhibit K - Redacted in Full, # 14 Exhibit L - Redacted in Full, # 15 Exhibit M - Redacted in Full, # 16 Exhibit N - Redacted in Full, # 17 Exhibit O - Redacted in Full)(Findlay, Eric) (Entered: 01/13/2023)
01/13/2023	388	REDACTION to 372 Sealed Response to Motion, <i>TQ Delta, LLC's Response to CommScope's Motion to Exclude Portions of the Expert Testimony of Jonathan Putnam and Todor Cooklev Under Fed. R. Evid. 702 and Daubert</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Fink Declaration, # 2 Exhibit 1 - 6 - Placeholder - Filed Under Seal in Their Entirety, # 3 Text of Proposed Order)(Fink, Rudolph) (Entered: 01/13/2023)
01/13/2023	389	REDACTION to 383 Sealed Response to Motion, <i>TQ Delta, LLC's Response in Opposition to CommScope's Motion to Exclude Expert Testimony of</i>



		<i>Jonathan Putnam, Ph.D. That Is Inconsistent with Legal Precedent</i> by TQ Delta, LLC. (Attachments: # 1 Exhibit A - E - Placeholder - Filed Under Seal in Their Entirety, # 2 Text of Proposed Order)(Davis, William) (Entered: 01/13/2023)
01/13/2023	390	REDACTION to 374 Sealed Response to Motion, by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order, # 2 Declaration of Andrew S. Ong, # 3 Exhibit F - Partial Redactions, # 4 Exhibit G - Partial Redactions)(Findlay, Eric) (Entered: 01/13/2023)
01/13/2023	391	REDACTION to 373 Sealed Response to Motion,, by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order, # 2 Declaration of Andrew S. Ong, # 3 Exhibit 1 - Redacted in Full, # 4 Exhibit 2)(Findlay, Eric) (Entered: 01/13/2023)
01/13/2023	392	REDACTION to 377 Sealed Response to Motion,, by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order, # 2 Declaration of Andrew S. Ong, # 3 Exhibit 10 - Partial Redactions, # 4 Exhibit 11, # 5 Exhibit 12, # 6 Exhibit 13 - Partial Redactions, # 7 Exhibit 14 - Partial Redactions, # 8 Exhibit 15)(Findlay, Eric) (Entered: 01/13/2023)
01/13/2023	393	REDACTION to 379 Sealed Response to Motion,, by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order, # 2 Declaration of Andrew S. Ong, # 3 Exhibit E - Partial Redactions, # 4 Exhibit F - Redacted in Full)(Findlay, Eric) (Entered: 01/13/2023)
01/14/2023	394	REDACTION to 380 Sealed Response to Motion,, by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order, # 2 Declaration of Andrew S. Ong, # 3 Exhibit R - Partial Redactions, # 4 Exhibit S - Partial Redactions, # 5 Exhibit T - Redacted in Full, # 6 Exhibit U - Partial Redactions, # 7 Exhibit V, # 8 Exhibit W - Partial Redactions, # 9 Exhibit X - Redacted in Full, # 10 Exhibit Y - Redacted in Full, # 11 Exhibit Z - Redacted in Full, # 12 Exhibit AA - Redacted in Full, # 13 Exhibit BB - Redacted in Full)(Findlay, Eric) (Entered: 01/14/2023)
01/17/2023	395	Joint MOTION to Amend/Correct 299 Order,, Terminate Motions,, Scheduling Order, by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 01/17/2023)
01/17/2023	396	REPLY to Response to Motion re 343 MOTION for Summary Judgment <i>Partial Summary Judgment Regarding Prior Art Status filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc..</i> (Findlay, Eric) (Entered: 01/17/2023)
01/17/2023	397	REPLY to Response to Motion re 342 Opposed MOTION to Exclude Certain Unreliable Opinions of Plaintiff's Expert Dr. Vijay Madiseti <i>filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US</i>

		<i>Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc..</i> (Findlay, Eric) (Entered: 01/17/2023)
01/17/2023	 398	SEALED REPLY to Response to Motion re 344 SEALED MOTION <i>to Exclude Portions of the Expert Testimony of Jonathan Putnam and Todor Cooklev Under Fed. R. Evid. 702 and Daubert</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Attachments: # 1 Declaration of Andrew S. Ong, # 2 Exhibit C, # 3 Exhibit D, # 4 Exhibit E) (Findlay, Eric) (Entered: 01/17/2023)
01/17/2023	 399	SEALED REPLY to Response to Motion re 336 Opposed SEALED MOTION <i>CommScope Defendants' Motion for Summary Judgment of Non-Infringement of the Family 3 Patents</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Attachments: # 1 Declaration of Andrew S. Ong, # 2 Exhibit I, # 3 Exhibit J)(Findlay, Eric) (Entered: 01/17/2023)
01/17/2023	 400	SEALED REPLY to Response to Motion re 346 Opposed SEALED MOTION <i>CommScope Defendants' Motion to Exclude Expert Testimony of Jonathan Putnam, Ph.D. That Is Inconsistent With Legal Precedent</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Attachments: # 1 Declaration of Andrew S. Ong, # 2 Exhibit K)(Findlay, Eric) (Entered: 01/17/2023)
01/17/2023	 401	SEALED REPLY to Response to Motion re 340 Opposed SEALED MOTION <i>CommScope Defendants' Motion for Partial Summary Judgment to Limit Damages Based on 35 U.S.C. § 286</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Findlay, Eric) (Entered: 01/17/2023)
01/17/2023	402	REPLY to Response to Motion re 337 Opposed SEALED MOTION <i>TQ Delta, LLC's Motion to Strike the Expert Testimony of Dr. George A. Zimmerman, Dr. Richard Wesel, Dr. Bruce McNair, and Dr. Niel Ransom</i> filed by TQ Delta, LLC. (Attachments: # 1 Exhibit 16)(Hurt, Christian) (Entered: 01/17/2023)
01/17/2023	403	REPLY to Response to Motion re 348 Opposed SEALED MOTION <i>TQ Delta, LLC's Motion for Summary Judgment on Families 2, 3, 6 and 9B</i> filed by TQ Delta, LLC. (Fink, Rudolph) (Entered: 01/17/2023)
01/17/2023	 404	***FILED IN ERROR*** SEALED REPLY to Response to Motion re 335 SEALED MOTION <i>FOR SUMMARY JUDGMENT OF NO BREACH OF ANY FRAND OBLIGATIONS (FAMILY 3 AND FAMILY 9A NON-ESSENTIAL PATENTS)</i> filed by TQ Delta, LLC. (Attachments: # 1 Affidavit Wilson Declaration, # 2 Exhibit H, # 3 Exhibit I, # 4 Exhibit J, # 5 Exhibit K)(Davis, William) Modified on 1/19/2023 (ch,). (Entered: 01/17/2023)
01/17/2023	405	REPLY to Response to Motion re 338 Opposed SEALED MOTION <i>Plaintiff TQ Delta, LLCs Motion to Strike the Invalidity Report of Defendants Expert, Mark Lanning</i> filed by TQ Delta, LLC. (Attachments: # 1 Exhibit L)(Davis, William) (Entered: 01/17/2023)




01/17/2023	 406	SEALED REPLY to Response to Motion re 345 Opposed SEALED MOTION <i>TQ Delta, LLC's Motion to Strike Portions of the Expert Report of Stephen L. Becker, Ph.D.</i> filed by TQ Delta, LLC. (Attachments: # 1 Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3)(Davis, William) (Entered: 01/17/2023)
01/17/2023	 407	*** FILED IN ERROR *** SEALED REPLY to Response to Motion re 347 Opposed SEALED MOTION <i>FOR SUMMARY JUDGMENT DIRECTED TO PATENT FAMILIES 1 AND 10</i> filed by TQ Delta, LLC. (Attachments: # 1 Affidavit Chiplunkar Declaration, # 2 Exhibit 1, # 3 Exhibit 2, # 4 Exhibit 3, # 5 Exhibit 4, # 6 Exhibit 5)(Davis, William) Modified on 1/19/2023 (ch,). (Entered: 01/17/2023)
01/17/2023	408	REPLY to Response to Motion re 341 Opposed SEALED MOTION <i>Plaintiff TQ Delta, LLC's Motion to Strike Portions of the Non-Infringement Report and Opinions of Defendants' Expert Dr. Naofal Al-Dhahir</i> filed by TQ Delta, LLC. (Davis, William) (Entered: 01/17/2023)
01/17/2023	409	REPLY to Response to Motion re 339 Opposed SEALED MOTION <i>Plaintiff TQ Delta, LLC's Motion to Strike Portions of the Non-Infringement Report and Opinions of Defendants Expert Dr. Leonard J. Cimini, Jr.</i> filed by TQ Delta, LLC. (Davis, William) (Entered: 01/17/2023)
01/17/2023	 410	SEALED REPLY to Response to Motion re 349 Opposed SEALED MOTION <i>FOR LEAVE TO FORMALLY SERVE THE FIRST SUPPLEMENTAL EXPERT REPORT OF JONATHAN D. PUTNAM</i> filed by TQ Delta, LLC. (Attachments: # 1 Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3, # 4 Exhibit 4, # 5 Exhibit 5, # 6 Exhibit 6, # 7 Exhibit 7, # 8 Exhibit 8, # 9 Exhibit 9, # 10 Exhibit 10)(Davis, William) (Entered: 01/17/2023)
01/18/2023	411	FOURTH AMENDED DOCKET CONTROL ORDER granting 395 Joint MOTION to Amend/Correct 299 Order. Pretrial Conference set for 3/1/2023 09:00 AM before District Judge Rodney Gilstrap., Jury Selection set for 3/20/2023 09:00AM before District Judge Rodney Gilstrap., Motions due by 2/8/2023., Proposed Pretrial Order due by 2/21/2023. Signed by District Judge Rodney Gilstrap on 1/18/2023. (ch,) (Entered: 01/18/2023)
01/19/2023		*** FILED IN ERROR. PER ATTORNEY Document # 404 407 , Sealed Reply. PLEASE IGNORE. *** (ch,) (Entered: 01/19/2023)
01/19/2023	 412	SEALED REPLY to Response to Motion re 335 SEALED MOTION <i>FOR SUMMARY JUDGMENT OF NO BREACH OF ANY FRAND OBLIGATIONS (FAMILY 3 AND FAMILY 9A NON-ESSENTIAL PATENTS)</i> filed by TQ Delta, LLC. (Attachments: # 1 Affidavit Wilson Declaration, # 2 Exhibit H, # 3 Exhibit I, # 4 Exhibit J, # 5 Exhibit K)(Davis, William) (Entered: 01/19/2023)
01/19/2023	 413	SEALED REPLY to Response to Motion re 347 Opposed SEALED MOTION <i>FOR SUMMARY JUDGMENT DIRECTED TO PATENT FAMILIES 1 AND 10</i> filed by TQ Delta, LLC. (Attachments: # 1 Affidavit Chiplunkar Declaration, # 2 Exhibit 1, # 3 Exhibit 2, # 4 Exhibit 3, # 5 Exhibit 4, # 6 Exhibit 5)(Davis, William) (Entered: 01/19/2023)
01/24/2023	414	SUR-REPLY to Reply to Response to Motion re 343 MOTION for Summary Judgment <i>Partial Summary Judgment Regarding Prior Art Status</i> filed by TQ Delta, LLC. (Attachments: # 1 Affidavit Wilson Declaration, # 2 Exhibit A, # 3 Exhibit B, # 4 Exhibit C)(Davis, William) (Entered: 01/24/2023)




01/24/2023	415	SUR-REPLY to Reply to Response to Motion re 337 Opposed SEALED MOTION <i>TQ Delta, LLC's Motion to Strike the Expert Testimony of Dr. George A. Zimmerman, Dr. Richard Wesel, Dr. Bruce McNair, and Dr. Niel Ransom filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc..</i> (Findlay, Eric) (Entered: 01/24/2023)
01/24/2023	 416	SEALED SUR-REPLY to Reply to Response to Motion re 346 Opposed SEALED MOTION <i>CommScope Defendants' Motion to Exclude Expert Testimony of Jonathan Putnam, Ph.D. That Is Inconsistent With Legal Precedent</i> filed by TQ Delta, LLC. (Davis, William) (Entered: 01/24/2023)
01/24/2023	417	SUR-REPLY to Reply to Response to Motion re 342 Opposed MOTION to Exclude Certain Unreliable Opinions of Plaintiff's Expert Dr. Vijay Madiseti filed by <i>TQ Delta, LLC.</i> (Davis, William) (Entered: 01/24/2023)
01/24/2023	418	SUR-REPLY to Reply to Response to Motion re 344 SEALED MOTION <i>to Exclude Portions of the Expert Testimony of Jonathan Putnam and Todor Cooklev Under Fed. R. Evid. 702 and Daubert</i> filed by <i>TQ Delta, LLC.</i> (Fink, Rudolph) (Entered: 01/24/2023)
01/24/2023	 419	SEALED SUR-REPLY to Reply to Response to Motion re 336 Opposed SEALED MOTION <i>CommScope Defendants' Motion for Summary Judgment of Non-Infringement of the Family 3 Patents</i> filed by TQ Delta, LLC. (Hurt, Christian) (Entered: 01/24/2023)
01/24/2023	 420	SEALED SUR-REPLY to Reply to Response to Motion re 340 Opposed SEALED MOTION <i>CommScope Defendants' Motion for Partial Summary Judgment to Limit Damages Based on 35 U.S.C. § 286</i> filed by TQ Delta, LLC. (Attachments: # 1 Exhibit 11)(Hurt, Christian) (Entered: 01/24/2023)
01/24/2023	421	REDACTION to 401 Sealed Reply to Response to Motion, <i>CommScope Defendants' Motion for Partial Summary Judgment to Limit Damages Based on 35 U.S.C. § 286</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Findlay, Eric) (Entered: 01/24/2023)
01/24/2023	422	REDACTION to 400 Sealed Reply to Response to Motion, by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Declaration of Andrew S. Ong, # 2 Exhibit K - Redacted in Full)(Findlay, Eric) (Entered: 01/24/2023)
01/24/2023	423	REDACTION to 412 Sealed Reply to Response to Motion, <i>TQ Delta, LLC's Reply in Support of its Motion for Summary Judgment of No Breach of Any FRAND Obligations (Family 3 and Family 9A Non-Essential Patents</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Wilson Declaration, # 2 Exhibit H, # 3 Exhibit I, # 4 Exhibit J, # 5 Exhibit K)(Davis, William) (Entered: 01/24/2023)
01/25/2023	424	REDACTION to 399 Sealed Reply to Response to Motion, by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Declaration of Andrew S. Ong, # 2 Exhibit I - Redacted in Full, # 3 Exhibit J - Redacted in Full)(Findlay, Eric) (Entered: 01/25/2023)
01/25/2023	425	REDACTION to 398 Sealed Reply to Response to Motion, by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US


		Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Declaration of Andrew S. Ong, # 2 Exhibit C - Redacted in Full, # 3 Exhibit D - Redacted in Full, # 4 Exhibit E - Redacted in Full) (Findlay, Eric) (Entered: 01/25/2023)
01/25/2023	426	SUR-REPLY to Reply to Response to Motion re 348 Opposed SEALED MOTION <i>TQ Delta, LLC's Motion for Summary Judgment on Families 2, 3, 6 and 9B</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Findlay, Eric) (Entered: 01/25/2023)
01/25/2023	 427	SEALED SUR-REPLY to Reply to Response to Motion re 345 Opposed SEALED MOTION <i>TQ Delta, LLC's Motion to Strike Portions of the Expert Report of Stephen L. Becker, Ph.D.</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Attachments: # 1 Declaration of Lana S. Shiferman, # 2 Exhibit P)(Findlay, Eric) (Entered: 01/25/2023)
01/25/2023	 428	SEALED SUR-REPLY to Reply to Response to Motion re 341 Opposed SEALED MOTION <i>Plaintiff TQ Delta, LLC's Motion to Strike Portions of the Non-Infringement Report and Opinions of Defendants' Expert Dr. Naofal Al-Dhahir</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Attachments: # 1 Declaration of Andrew S. Ong, # 2 Exhibit G, # 3 Exhibit H)(Findlay, Eric) (Entered: 01/25/2023)
01/25/2023	429	SUR-REPLY to Reply to Response to Motion re 338 Opposed SEALED MOTION <i>Plaintiff TQ Delta, LLCs Motion to Strike the Invalidity Report of Defendants Expert, Mark Lanning</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Findlay, Eric) (Entered: 01/25/2023)
01/25/2023	 430	SEALED SUR-REPLY to Reply to Response to Motion re 339 Opposed SEALED MOTION <i>Plaintiff TQ Delta, LLC's Motion to Strike Portions of the Non-Infringement Report and Opinions of Defendants Expert Dr. Leonard J. Cimini, Jr.</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Findlay, Eric) (Entered: 01/25/2023)
01/25/2023	 431	FILED IN ERROR PER ATTORNEY SEALED SUR-REPLY to Reply to Response to Motion re 349 Opposed SEALED MOTION <i>FOR LEAVE TO FORMALLY SERVE THE FIRST SUPPLEMENTAL EXPERT REPORT OF JONATHAN D. PUTNAM</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Findlay, Eric) Modified on 1/26/2023 (nkl,). (Entered: 01/25/2023)
01/25/2023	 432	SEALED SUR-REPLY to Reply to Response to Motion re 349 Opposed SEALED MOTION <i>FOR LEAVE TO FORMALLY SERVE THE FIRST SUPPLEMENTAL EXPERT REPORT OF JONATHAN D. PUTNAM</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Findlay, Eric) (Entered: 01/25/2023)



01/25/2023	433	REDACTION to 406 Sealed Reply to Response to Motion, <i>TQ Delta, LLC's Reply in Support of Motion to Strike Portions of the Expert Report of Stephen L. Becker, Ph.D.</i> by TQ Delta, LLC. (Attachments: # 1 Exhibit 1-3 Placeholder - Filed Under Seal in Their Entirety)(Davis, William) (Entered: 01/25/2023)
01/25/2023	434	REDACTION to 410 Sealed Reply to Response to Motion, <i>Plaintiff TQ Delta, LLC's Reply In Support of its Opposed Motion for Leave to Formally Serve the First Supplemental Expert Report of Jonathan D. Putnam on the CommScope Defendants</i> by TQ Delta, LLC. (Attachments: # 1 Exhibit 1 - Placeholder - Filed Under Seal in its Entirety, # 2 Exhibit 2, # 3 Exhibit 3 - Placeholder Filed Under Seal in its Entirety, # 4 Exhibit 4, # 5 Exhibit 5 - Placeholder - Filed Under Seal in its Entirety, # 6 Exhibit 6, # 7 Exhibit 7, # 8 Exhibit 8 - 10 - Placeholder Filed Under Seal in Their Entirety)(Davis, William) (Entered: 01/25/2023)
01/26/2023		***FILED IN ERROR PER ATTORNEY. Document # 431, SEALED SUR-REPLY to Reply to Response to Motion. PLEASE IGNORE.*** (nkl,) (Entered: 01/26/2023)
01/26/2023	435	NOTICE by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. <i>of Compliance regarding Pretrial Disclosures</i> (Findlay, Eric) (Entered: 01/26/2023)
01/26/2023	436	NOTICE by TQ Delta, LLC <i>Notice of Compliance Regarding Pretrial Disclosures</i> (Davis, William) (Entered: 01/26/2023)
01/26/2023	 437	SEALED SUR-REPLY to Reply to Response to Motion re 335 SEALED MOTION <i>FOR SUMMARY JUDGMENT OF NO BREACH OF ANY FRAND OBLIGATIONS (FAMILY 3 AND FAMILY 9A NON-ESSENTIAL PATENTS)</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Attachments: # 1 Declaration of Andrew S. Ong, # 2 Exhibit L)(Findlay, Eric) (Entered: 01/26/2023)
01/26/2023	 438	SEALED SUR-REPLY to Reply to Response to Motion re 347 Opposed SEALED MOTION <i>FOR SUMMARY JUDGMENT DIRECTED TO PATENT FAMILIES 1 AND 10</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Attachments: # 1 Declaration of Andrew S. Ong, # 2 Exhibit CC)(Findlay, Eric) (Entered: 01/26/2023)
01/31/2023	439	REDACTION to 416 Sealed Sur-Reply to Reply to Response to Motion, <i>Plaintiff TQ Delta's Sur-Reply in Opposition to CommScope's Motion to Exclude Expert Testimony of Jonathan Putnam, Ph.D. that is Inconsistent with Legal Precedent</i> by TQ Delta, LLC. (Davis, William) (Entered: 01/31/2023)
01/31/2023	440	REDACTION to 419 Sealed Sur-Reply to Reply to Response to Motion <i>TQ Delta's Sur-Reply to CommScope's Motion for Summary Judgment of Non-Infringement of the Family 3 Patents</i> by TQ Delta, LLC. (Hurt, Christian) (Entered: 01/31/2023)
01/31/2023	441	REDACTION to 420 Sealed Sur-Reply to Reply to Response to Motion, <i>TQ Delta's Sur-Reply to CommScope's Motion for Partial Summary Judgment to Limit Damages Based on 35 USC § 286</i> by TQ Delta, LLC. (Attachments: # 1 Exhibit 11 - Placeholder - Filed Under Seal in its Entirety)(Hurt, Christian) (Entered: 01/31/2023)











01/31/2023	442	REDACTION to 413 Sealed Reply to Response to Motion, <i>TQ Delta's Reply Memorandum in Support of its Motion for Summary Judgement Directed to Patent Families 1 and 10</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Chiplunkar Declaration, # 2 Exhibit 1-5 - Placeholder - Filed Under Seal in Their Entirety)(Davis, William) (Entered: 01/31/2023)
02/01/2023	443	REDACTION to 432 Sealed Sur-Reply to Reply to Response to Motion, <i>COMMSCOPE'S SUR-REPLY TO MOTION FOR LEAVE TO FORMALLY SERVE THE FIRST SUPPLEMENTAL EXPERT REPORT OF JONATHAN D. PUTNAM</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Findlay, Eric) (Entered: 02/01/2023)
02/01/2023	444	REDACTION to 437 Sealed Sur-Reply to Reply to Response to Motion, <i>COMMSCOPE'S SUR-REPLY TO MOTION FOR SUMMARY JUDGMENT OF NO BREACH OF ANY FRAND OBLIGATIONS (FAMILY 3 AND FAMILY 9A NON-ESSENTIAL PATENTS)</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Declaration of Andrew S. Ong, # 2 Exhibit L)(Findlay, Eric) (Entered: 02/01/2023)
02/01/2023	445	REDACTION to 427 Sealed Sur-Reply to Reply to Response to Motion, <i>CommScope's Sur-Reply to Motion to Strike Portions of the Expert Report of Stephen L. Becker, Ph.D.</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Declaration of Lana S. Shiferman, # 2 Exhibit P - Redacted in Full)(Findlay, Eric) (Entered: 02/01/2023)
02/02/2023	446	REDACTION to 430 Sealed Sur-Reply to Reply to Response to Motion, <i>CommScope's Sur-Reply to Motion to Strike Portions of the Non-Infringement Report and Opinions of Defendants Expert Dr. Leonard J. Cimini, Jr.</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Findlay, Eric) (Entered: 02/02/2023)
02/02/2023	447	REDACTION to 428 Sealed Sur-Reply to Reply to Response to Motion, <i>CommScope's Sur-Reply to Motion to Strike Portions of the Non-Infringement Report and Opinions of Defendants' Expert Dr. Naofal Al-Dhahir</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Declaration of Andrew S. Ong, # 2 Exhibit G - Redacted in Full, # 3 Exhibit H - Redacted in Full)(Findlay, Eric) (Entered: 02/02/2023)
02/02/2023	448	REDACTION to 438 Sealed Sur-Reply to Reply to Response to Motion, <i>COMMSCOPE'S SUR-REPLY TO MOTION FOR SUMMARY JUDGMENT DIRECTED TO PATENT FAMILIES 1 AND 10</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Declaration of Andrew S. Ong, # 2 Exhibit CC - Redacted in Full)(Findlay, Eric) (Entered: 02/02/2023)
02/03/2023	449	NOTICE of Attorney Appearance by Deron R Dacus on behalf of ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc.,


		CommScope Holding Company, Inc., Commscope Inc. (Dacus, Deron) (Entered: 02/03/2023)
02/08/2023	 450	*** DEFICIENT DOCUMENT *** SEALED MOTION <i>MOTIONS IN LIMINE</i> by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Declaration of Ross R. Barton, # 2 Exhibit A - Ericsson v Apple dkt 291, # 3 Exhibit B - sealed, # 4 Exhibit C - sealed, # 5 Exhibit D - sealed, # 6 Exhibit E - sealed, # 7 Exhibit F - sealed, # 8 Exhibit G - sealed, # 9 Exhibit H - Fam 2 Trial Tr., # 10 Exhibit I - Fam 3 - Trial Tr., # 11 Text of Proposed Order)(Barton, Ross) Modified on 2/9/2023 (ch,). (Entered: 02/08/2023)
02/08/2023	 451	SEALED MOTION <i>Plaintiff TQ Delta, LLC's Partially Opposed Motions in Limine</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Fink Declaration, # 2 Exhibit 1, # 3 Exhibit 2, # 4 Exhibit 3, # 5 Exhibit 4, # 6 Exhibit 5, # 7 Exhibit 6, # 8 Exhibit 7, # 9 Exhibit 8, # 10 Exhibit 9, # 11 Exhibit 10, # 12 Exhibit 11, # 13 Text of Proposed Order)(Davis, William) (Entered: 02/08/2023)
02/09/2023		NOTICE of Deficiency regarding the 450 submitted Needs Certificate of Conference. Correction should be made by one business day (ch,) (Entered: 02/09/2023)
02/09/2023	 452	SEALED MOTION <i>CommScope's Motions in Limine (Corrected)</i> by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Declaration of Ross R. Barton, # 2 Exhibit A - Ericsson v Apple dkt 291, # 3 Exhibit B - sealed, # 4 Exhibit C - sealed, # 5 Exhibit D - sealed, # 6 Exhibit E - sealed, # 7 Exhibit F - sealed, # 8 Exhibit G - sealed, # 9 Exhibit H - 1-15-20 Fam 2 Trial Tr, # 10 Exhibit I - 5-23-19 Fam 3 Trial Tr, # 11 Text of Proposed Order)(Barton, Ross) (Entered: 02/09/2023)
02/15/2023	453	REDACTION to 452 SEALED MOTION <i>CommScope's Motions in Limine (Corrected)</i> by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Declaration of Ross R. Barton, # 2 Exhibit A - Ericsson v Apple dkt 291, # 3 Exhibit B - Excerpts Putnam Report (redacted), # 4 Exhibit C - redacted in full, # 5 Exhibit D - redacted in full, # 6 Exhibit E - redacted in full, # 7 Exhibit F - redacted in full, # 8 Exhibit G - redacted in full, # 9 Exhibit Family 2 Trial Transcript, # 10 Exhibit Family 3 Trial Transcript, # 11 Text of Proposed Order)(Barton, Ross) (Entered: 02/15/2023)
02/15/2023	454	REDACTION to 451 SEALED MOTION <i>Plaintiff TQ Delta, LLC's Partially Opposed Motions in Limine</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Fink Declaration, # 2 Exhibit 1, # 3 Exhibit 2 - 6 Placeholder - Filed Under Seal in their Entirety, # 4 Exhibit 7, # 5 Exhibit 8, # 6 Exhibit 9 - Placeholder - Filed Under Seal in its Entirety, # 7 Exhibit 10, # 8 Exhibit 11 - Placeholder - Filed Under Seal in its Entirety, # 9 Text of Proposed Order)(Davis, William) (Entered: 02/15/2023)
02/15/2023	455	NOTICE by TQ Delta, LLC <i>of Request for Daily Transcript and Real-Time Reporting</i> (Davis, William) (Entered: 02/15/2023)




02/16/2023	456	ORDER REGARDING EXHIBITS. Signed by District Judge Rodney Gilstrap on 2/15/2023. (nkl,) (Entered: 02/16/2023)
02/16/2023	457	NOTICE by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. <i>CommScopes Notice of Request for Daily Transcript and Real-Time Reporting</i> (Barton, Ross) (Entered: 02/16/2023)
02/16/2023	458	FIFTH AMENDED DOCKET CONTROL ORDER - Jury Selection set for 3/17/2023 09:00AM before District Judge Rodney Gilstrap.. Signed by District Judge Rodney Gilstrap on 2/16/2023. (nkl,) (Entered: 02/16/2023)
02/17/2023	459	NOTICE by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. <i>CommScopes Disclosures Pursuant to 35 U.S.C. § 282</i> (Barton, Ross) (Entered: 02/17/2023)
02/21/2023	460	MEMORANDUM OPINION AND ORDER re 348 Opposed SEALED MOTION <i>TQ Delta, LLC's Motion for Summary Judgment on Families 2, 3, 6 and 9B</i> filed by TQ Delta, LLC.. Signed by District Judge Rodney Gilstrap on 2/21/2023. (nkl,) (Entered: 02/21/2023)
02/21/2023	461	NOTICE of Attorney Appearance by Michael Clayton Deane on behalf of ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Deane, Michael) (Entered: 02/21/2023)
02/21/2023	462	Opposed MOTION CommScopes Opposed Motion to Change Lead Counsel Designation by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order)(Barton, Ross) (Entered: 02/21/2023)
02/21/2023	 463	SEALED RESPONSE to Motion re 451 SEALED MOTION <i>Plaintiff TQ Delta, LLC's Partially Opposed Motions in Limine</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Exhibit A - Excerpt Becker Report, # 2 Text of Proposed Order)(Barton, Ross) (Entered: 02/21/2023)
02/21/2023	 464	SEALED RESPONSE to Motion re 452 SEALED MOTION <i>CommScope's Motions in Limine (Corrected)</i> filed by TQ Delta, LLC. (Attachments: # 1 Affidavit Declaration of Ty Wilson, # 2 Exhibit A, # 3 Exhibit B, # 4 Exhibit C, # 5 Exhibit D, # 6 Text of Proposed Order)(Davis, William) (Entered: 02/21/2023)
02/21/2023	465	Joint MOTION to Amend Standing Order on the Number and Use of Pre-Admitted Exhibits at Trial by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(Davis, William) (Entered: 02/21/2023)
02/22/2023	 466	Sealed - JOINT PRETRIAL ORDER (Attachments: # 1 Exhibit A - TQ Delta Witness List, # 2 Exhibit B - CommScope's Witness List, # 3 Exhibit C - CommScope's Objections to TQD Witness List, # 4 Exhibit D - TQ Delta's Objections to CommScope Witness List, # 5 Exhibit E - TQ Delta's Depo Designations, # 6 Exhibit F - CommScope's Depo Designations, # 7 Exhibit G - Joint Exhibit List, # 8 Exhibit H - TQ Delta's Pretrial Exhibit List, # 9 Exhibit I - CommScope Exhibit List, # 10 Exhibit J - Joint Proposed Preliminary Jury Instructions, # 11 Exhibit K - Joint Proposed Jury






		Instructions, # 12 Exhibit L - TQ Delta's Proposed Verdict Form, # 13 Exhibit M - CommScope's Proposed Verdict Form)(Davis, William) (Entered: 02/22/2023)
02/22/2023	467	NOTICE of Attorney Appearance by Katherine Donald on behalf of ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Donald, Katherine) (Entered: 02/22/2023)
02/22/2023	468	Unopposed MOTION to Expedite <i>Briefing Schedule Regarding CommScopes Opposed Motion to Change Lead Counsel Designation</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Text of Proposed Order)(Barton, Ross) (Entered: 02/22/2023)
02/23/2023	469	NOTICE by TQ Delta, LLC <i>Joint Notice Following Pretrial Meet and Confer</i> (Davis, William) (Entered: 02/23/2023)
02/23/2023	470	ORDER granting 468 Motion to Expedite Briefing Schedule Regarding CommScopes Opposed Motion to Change Lead Counsel Designation. Signed by District Judge Rodney Gilstrap on 2/23/2023. (nkl,) (Entered: 02/23/2023)
02/23/2023	471	ORDER denying 465 Motion to Amend Standing Order on the Number and Use of Pre-Admitted Exhibits at Trial. Signed by District Judge Rodney Gilstrap on 2/23/2023. (nkl,) (Entered: 02/23/2023)
02/23/2023	472	NOTICE of Attorney Appearance by Darlena Subashi on behalf of ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Subashi, Darlena) (Entered: 02/23/2023)
02/24/2023	473	NOTICE of Attorney Appearance - Pro Hac Vice by David Z Petty on behalf of TQ Delta, LLC. Filing fee \$ 100, receipt number ATXEDC-9372532. (Petty, David) (Entered: 02/24/2023)
02/26/2023	474	REPORT of Mediation by David Folsom. Mediation result: impasse(Folsom, David) (Entered: 02/26/2023)
02/27/2023	475	RESPONSE in Opposition re 462 Opposed MOTION CommScopes Opposed Motion to Change Lead Counsel Designation <i>filed by TQ Delta, LLC</i> . (Attachments: # 1 Affidavit Fink Declaration, # 2 Exhibit 1 - CommScope's Final Election of Prior Art, # 3 Text of Proposed Order)(Davis, William) (Entered: 02/27/2023)
02/27/2023	 476	SEALED REPLY to Response to Motion re 462 Opposed MOTION CommScopes Opposed Motion to Change Lead Counsel Designation filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Declaration of Darlena Subashi, # 2 Exhibit 1 - Deposition excerpts, # 3 Exhibit 2 - Expert report excerpts, # 4 Exhibit 3 - Shead Declaration, # 5 Exhibit 4 - Barton Declaration)(Barton, Ross) (Entered: 02/27/2023)
02/28/2023	477	REDACTION to 463 Sealed Response to Motion, <i>Defendant CommScope's Opposition to Plaintiff TQ Delta, LLC's Partially Opposed Motions in Limine</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope




		Inc.. (Attachments: # 1 Exhibit A - Placeholder, # 2 Text of Proposed Order) (Barton, Ross) (Entered: 02/28/2023)
02/28/2023	 478	Sealed Document - Notice of Amended Joint Pretrial Order Exhibits (Attachments: # 1 Exhibit H, # 2 Exhibit I)(Davis, William) (Entered: 02/28/2023)
02/28/2023	479	ORDER granting 462 Motion to Change Lead Counsel Designation. Signed by District Judge Rodney Gilstrap on 2/28/2023. (nkl,) (Entered: 02/28/2023)
02/28/2023	480	REDACTION to 464 Sealed Response to Motion, <i>TQ Delta's Response to CommScope's Motions in Limine</i> by TQ Delta, LLC. (Attachments: # 1 Affidavit Wilson Declaration, # 2 Exhibit A-D Placeholder - Filed Under Seal in Their Entirety, # 3 Text of Proposed Order)(Davis, William) (Entered: 02/28/2023)
02/28/2023	481	REDACTION to 466 Sealed Document,,, <i>Joint Pretrial Order</i> by TQ Delta, LLC. (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Exhibit C, # 4 Exhibit D, # 5 Exhibit E, # 6 Exhibit F, # 7 Exhibit G, # 8 Exhibit H, # 9 Exhibit I, # 10 Exhibit J, # 11 Exhibit K, # 12 Exhibit L, # 13 Exhibit M)(Davis, William) (Entered: 02/28/2023)
03/01/2023	482	Minute Entry for proceedings held before District Judge Rodney Gilstrap: Final Pretrial Conference Day 1 held on 3/1/2023. (From 09:09 AM to 05:32 PM) (Court Reporter Shawn McRoberts) (Attachments: # 1 Attorney Attendance Sheet) (aeb) (Entered: 03/01/2023)
03/02/2023	483	ORDER TO PURCHASE JURY MEALS. Signed by District Judge Rodney Gilstrap on 3/2/2023. (nkl,) (Entered: 03/02/2023)
03/02/2023	484	PAPER TRANSCRIPT REQUEST by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. for proceedings held on 3/1/23 and 3/2/23 PT Conference before Judge Rodney Gilstrap. (Forwarded to Shawn McRoberts on 3/2/23) (Barton, Ross) Modified on 3/2/2023 (bga). (Entered: 03/02/2023)
03/02/2023	485	PAPER TRANSCRIPT REQUEST by TQ Delta, LLC for proceedings held on 3/1/23 and 3/2/23 - Pretrial Conference before Judge Rodney Gilstrap. (Forwarded to Shawn McRoberts) (Davis, William) Modified on 3/2/2023 (bga). (Entered: 03/02/2023)
03/02/2023	486	Minute Entry for proceedings held before District Judge Rodney Gilstrap: Final Pretrial Conference Day 2 held on 3/2/2023. (From 09:00 AM to 05:03 AM)(Court Reporter Shawn McRoberts) (Attachments: # 1 Attorney Attendance Sheet) (aeb) (Entered: 03/03/2023)
03/03/2023	487	REDACTION to 476 Sealed Reply to Response to Motion,, <i>CommScopes Reply in Support of Its Opposed Motion to Change Lead Counsel Designation</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Declaration of Darlena Subashi, # 2 Exhibit 1 - Placeholder, # 3 Exhibit 2 - Placeholder, # 4 Exhibit 3 - Shead Declaration, # 5 Exhibit 4 - Barton Declaration)(Barton, Ross) (Entered: 03/03/2023)
03/06/2023	 488	Sealed Document - TQ Delta, LLC's Notice of Amended Joint Pretrial Order Exhibit (Attachments: # 1 Exhibit H)(Davis, William) (Entered: 03/06/2023)





03/06/2023	 489	REDACTION to 478 Sealed Document <i>Notice of Amended Joint Pretrial Order Exhibits</i> by TQ Delta, LLC. (Attachments: # 1 Exhibit H, # 2 Exhibit I) (Davis, William) (Entered: 03/06/2023)
03/07/2023	 490	NOTICE by TQ Delta, LLC <i>TQ Delta, LLC's Notice of Final Election of Asserted Claims</i> (Davis, William) (Entered: 03/07/2023)
03/08/2023	 491	Sealed Document. (Attachments: # 1 Exhibit B - Amended Witness List, # 2 Exhibit I - Exhibit List)(Barton, Ross) (Entered: 03/08/2023)
03/08/2023	 492	Sealed Document - Notice of Trial Exhibit List. (Attachments: # 1 Exhibit 1) (Davis, William) (Entered: 03/08/2023)
03/09/2023	 493	Sealed Pretrial Conference (Volume 1) Transcript. (smm,) (Entered: 03/09/2023)
03/09/2023	 494	Sealed Pretrial Conference (Volume 2) Transcript. (smm,) (Entered: 03/09/2023)
03/09/2023	 495	NOTICE by TQ Delta, LLC <i>TQ Delta, LLC's Notice of Corrected Final Election of Asserted Claims</i> (Davis, William) (Entered: 03/09/2023)
03/09/2023	 496	ORDER ON PRETRIAL MOTIONS AND MOTIONS IN LIMINE re 335 Sealed Motion for Summary Judgment of No Breach of Any FRAND Obligations (Family 3 and Family 9A Non-Essential Patents); 336 Sealed Motion for Summary Judgment of Non-Infringement of the Family 3 Patents; 337 Sealed Motion to Strike the Expert Testimony of Dr. George A. Zimmerman, Dr. Richard Wesel, Dr. Bruce McNair, and Dr. Niel Ransom; 338 Sealed Motion to Strike the Invalidity Report of Defendants Expert, Mark Lanning ; 339 Sealed Motion to Strike Portions of the Non-infringement Report and Opinions of Defendants Expert, Dr. Leonard J. Cimini, Jr.; 340 Sealed Motion for Partial Summary Judgment to Limit Damages Based on 35 U.S.C. § 286; 341 Sealed Motion to Strike Portions of the Non-infringement Report and Opinions of Defendants Expert, Dr. Naofal Al-Dhahir; 342 Motion to Exclude Certain Unreliable Opinions of Plaintiffs Expert Dr. Vijay Madiseti ; 343 Motion for Partial Summary Judgment Regarding Prior Art Status; 344 Sealed Motion to Exclude Portions of the Expert Testimony of Jonathan Putnam and Todor Cooklev Under Fed. R. Evid. 702 and Daubert; 345 Sealed Motion to Strike Portions of the Expert Report of Stephen L. Becker, Ph.D.; 346 Sealed Motion to Exclude Expert Testimony of Jonathan Putnam, Ph.D. that Is Inconsistent with Legal Precedent; 347 Sealed Motion for Summary Judgment Directed to Patent Families 1 and 10; 349 Sealed Motion for Leave to Formally Serve the First Supplemental Expert Report of Jonathan D. Putnam on the CommScope Defendants. Signed by District Judge Rodney Gilstrap on 3/9/2023. (nkl,) (Entered: 03/09/2023)
03/10/2023	 497	(Court only) ***Motions terminated: 452 SEALED MOTION <i>CommScope's Motions in Limine (Corrected)</i> filed by CommScope Holding Company, Inc., ARRIS US Holdings, Inc., ARRIS Technology, Inc., ARRIS Solutions, Inc., ARRIS International Limited, ARRIS Enterprises, LLC, Commscope Inc., ARRIS Global Ltd., 451 SEALED MOTION <i>Plaintiff TQ Delta, LLC's Partially Opposed Motions in Limine</i> filed by TQ Delta, LLC. (klc,) (Entered: 03/10/2023)
03/10/2023	 497	NOTICE by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. <i>Defendant CommScope's Final Invalidity Theories,</i>




		<i>Prior Art References, and Equitable Defenses</i> (Barton, Ross) (Entered: 03/10/2023)
03/10/2023	498	NOTICE by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. re 466 Sealed Document,, <i>Supplement to Joint Pretrial Order</i> (Attachments: # 1 Exhibit B - Defendant CommScope's Second Amended Notice of Trial Witnesses)(Barton, Ross) (Entered: 03/10/2023)
03/12/2023	499	NOTICE by TQ Delta, LLC <i>TQ Delta, LLC's Notice of Amended Joint Pretrial Order Exhibit</i> (Attachments: # 1 Exhibit A)(Davis, William) (Entered: 03/12/2023)
03/13/2023	500	NOTICE by TQ Delta, LLC <i>TQ Delta, LLC's Notice of Corrected Amended Joint Pretrial Order Exhibit</i> (Attachments: # 1 Exhibit A)(Davis, William) (Entered: 03/13/2023)
03/13/2023	501	NOTICE by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. re 466 Sealed Document,, <i>Supplement to Joint Pretrial Order</i> (Attachments: # 1 Exhibit F)(Barton, Ross) (Entered: 03/13/2023)
03/16/2023	502	NOTICE by TQ Delta, LLC <i>TQ Delta, LLC's Notice of Second Amended Joint Pretrial Order Exhibit</i> (Attachments: # 1 Exhibit A)(Davis, William) (Entered: 03/16/2023)
03/17/2023	503	Minute Entry for proceedings held before District Judge Rodney Gilstrap: Jury Selection and Jury Trial Day 1 held on 3/17/2023. (From 09:07 AM to 05:44 PM) (Exhibits admitted)(Court Reporter Shawn McRoberts) (Attachments: # 1 Attorney Attendance Sheet) (aeb) (Entered: 03/19/2023)
03/20/2023	504	Minute Entry for proceedings held before District Judge Rodney Gilstrap: Jury Trial Day 2 held on 3/20/2023. (From 08:27 AM to 06:16 PM) (Exhibits admitted)(Court Reporter Shawn McRoberts) (Attachments: # 1 Attorney Attendance Sheet) (aeb) (Entered: 03/20/2023)
03/21/2023	505	Minute Entry for proceedings held before District Judge Rodney Gilstrap: Jury Trial Day 3 held on 3/21/2023. (From 08:34 AM to 05:43 PM) (Exhibits admitted)(Court Reporter Shawn McRoberts) (Attachments: # 1 Attorney Attendance Sheet) (aeb) (Entered: 03/21/2023)
03/22/2023	506	Minute Entry for proceedings held before District Judge Rodney Gilstrap: Jury Trial Day 4 held on 3/22/2023. (From 08:30 AM to 05:44 PM) (Exhibits admitted)(Court Reporter Shawn McRoberts) (Attachments: # 1 Attorney Attendance Sheet) (aeb) (Entered: 03/22/2023)
03/23/2023	507	Minute Entry for proceedings held before District Judge Rodney Gilstrap: Jury Trial Day 5 held on 3/23/2023. (From 08:27 AM to 04:43 PM) (Exhibits admitted)(Court Reporter Shawn McRoberts) (Attachments: # 1 Attorney Attendance Sheet) (aeb) (Entered: 03/23/2023)
03/23/2023		Minute Entry for proceedings held before District Judge Rodney Gilstrap: Informal Charge Conference held on 3/23/2023. (No exhibits)(No Court Reporter) (aeb) (Entered: 03/23/2023)
03/24/2023	508	JURY VERDICT. (aeb) (Entered: 03/24/2023)
03/24/2023	 509	SEALED Jury Verdict. (aeb) (Entered: 03/24/2023)






03/24/2023	 510	SEALED Jury Note. (aeb) (Entered: 03/27/2023)
03/24/2023	511	Minute Entry for proceedings held before District Judge Rodney Gilstrap: Jury Trial completed on 3/24/2023. (From 08:00 AM to 05:13 PM)(Court Reporter Shawn McRoberts) (Attachments: # 1 Attorney Attendance Sheet) (aeb) (Entered: 03/27/2023)
04/03/2023	 512	SEALED Joint Final Exhibit List for Jury Trial. (aeb) (Entered: 04/03/2023)
05/03/2023	513	FINAL JUDGMENT. Signed by District Judge Rodney Gilstrap on 5/3/2023. (nkl,) (Entered: 05/03/2023)
05/03/2023	514	Notice of Filing of Patent/Trademark Form (AO 120) at termination of case. AO 120 mailed to the Director of the U.S. Patent and Trademark Office. (nkl,) (Entered: 05/03/2023)
05/17/2023	515	Unopposed MOTION for Extension of Time to File <i>Bill of Costs</i> by TQ Delta, LLC. (Attachments: # 1 Text of Proposed Order)(McAndrews, Peter) (Entered: 05/17/2023)
05/19/2023	516	ORDER granting 515 Unopposed MOTION for Extension of Time to File Bill of Costs. ORDERED that TQ Delta shall file its Bill of Costs on or before May 24, 2023. Signed by District Judge Rodney Gilstrap on 5/18/2023. (ch,) (Entered: 05/19/2023)
05/23/2023	517	NOTICE of Attorney Appearance by Anthony Kyle Bruster on behalf of TQ Delta, LLC (Bruster, Anthony) (Entered: 05/23/2023)
05/23/2023	518	NOTICE of Attorney Appearance by Shawn A. Latchford on behalf of TQ Delta, LLC (Latchford, Shawn) (Entered: 05/23/2023)
05/23/2023	519	NOTICE of Attorney Appearance by Andrew J Wright on behalf of TQ Delta, LLC (Wright, Andrew) (Entered: 05/23/2023)
05/23/2023	520	NOTICE of Attorney Appearance by Edward Chin on behalf of TQ Delta, LLC (Chin, Edward) (Entered: 05/23/2023)
05/24/2023	521	Unopposed MOTION for Extension of Time to File <i>Bill of Costs</i> by TQ Delta, LLC. (Attachments: # 1 Proposed Order Proposed Order)(Chin, Edward) (Entered: 05/24/2023)
05/25/2023	522	ORDER granting 521 Motion for Extension of Time to File Bill of Costs. On or before 5/26/2023. Signed by District Judge Rodney Gilstrap on 5/25/2023. (ch,) (Entered: 05/25/2023)
05/25/2023	523	Unopposed MOTION to Substitute Attorney <i>as lead counsel</i> by TQ Delta, LLC. (Attachments: # 1 Proposed Order)(McAndrews, Peter) (Entered: 05/25/2023)
05/26/2023	524	PROPOSED BILL OF COSTS filed by TQ Delta, LLC. (Attachments: # 1 Exhibit)(McAndrews, Peter) (Entered: 05/26/2023)
05/30/2023	525	ORDER granting 523 Motion to Substitute Lead Attorney.. Signed by District Judge Rodney Gilstrap on 05/28/2023. (klc,) (Entered: 05/30/2023)
05/30/2023	 526	NOTICE OF FILING OF OFFICIAL TRANSCRIPT of Trial (Volume 1) Proceedings held on 03/17/2023 before Judge Rodney Gilstrap. Court Reporter/Transcriber: Shawn McRoberts, Telephone number: (903) 923-8546.






		<p>NOTICE RE REDACTION OF TRANSCRIPTS: The parties have seven (7) days to file with the Court a Notice of Intent to Request Redaction of this transcript. If no such Notice is filed, the transcript will be made remotely electronically available to the public without redaction after 90 calendar days. The policy is located on our website at www.txed.uscourts.gov</p> <p>Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER.. Motion to Redact due 6/20/2023. Release of Transcript Restriction set for 8/28/2023. (smm,) (Entered: 05/30/2023)</p>
05/30/2023	 527	<p>NOTICE OF FILING OF OFFICIAL TRANSCRIPT of Trial (Volume 2 Redacted) Proceedings held on 03/20/2023 before Judge Rodney Gilstrap. Court Reporter/Transcriber: Shawn McRoberts, Telephone number: (903) 923-8546.</p> <p>NOTICE RE REDACTION OF TRANSCRIPTS: The parties have seven (7) days to file with the Court a Notice of Intent to Request Redaction of this transcript. If no such Notice is filed, the transcript will be made remotely electronically available to the public without redaction after 90 calendar days. The policy is located on our website at www.txed.uscourts.gov</p> <p>Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER.. Motion to Redact due 6/20/2023. Release of Transcript Restriction set for 8/28/2023. (smm,) (Entered: 05/30/2023)</p>
05/30/2023	 528	Sealed Trial Volume 2 Transcript. (smm) (Entered: 05/30/2023)
05/30/2023	 529	<p>NOTICE OF FILING OF OFFICIAL TRANSCRIPT of Trial (Volume 3 Redacted) Proceedings held on 03/21/2023 before Judge Rodney Gilstrap. Court Reporter/Transcriber: Shawn McRoberts, Telephone number: (903) 923-8546.</p> <p>NOTICE RE REDACTION OF TRANSCRIPTS: The parties have seven (7) days to file with the Court a Notice of Intent to Request Redaction of this transcript. If no such Notice is filed, the transcript will be made remotely electronically available to the public without redaction after 90 calendar days. The policy is located on our website at www.txed.uscourts.gov</p> <p>Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER.. Motion to Redact due 6/20/2023. Release of Transcript Restriction set for 8/28/2023. (smm,) (Entered: 05/30/2023)</p>
05/30/2023	 530	Sealed Trial (Volume 3) Transcript. (smm) (Entered: 05/30/2023)
05/30/2023	 531	NOTICE OF FILING OF OFFICIAL TRANSCRIPT of Trial (Volume 4 Redacted) Proceedings held on 03/22/2023 before Judge Rodney Gilstrap.

		<p>Court Reporter/Transcriber: Shawn McRoberts, Telephone number: (903) 923-8546.</p> <p>NOTICE RE REDACTION OF TRANSCRIPTS: The parties have seven (7) days to file with the Court a Notice of Intent to Request Redaction of this transcript. If no such Notice is filed, the transcript will be made remotely electronically available to the public without redaction after 90 calendar days. The policy is located on our website at www.txed.uscourts.gov</p> <p>Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER.. Motion to Redact due 6/20/2023. Release of Transcript Restriction set for 8/28/2023. (smm,) (Entered: 05/30/2023)</p>
05/30/2023	 532	Sealed Trial (Volume 4) Transcript. (smm) (Entered: 05/30/2023)
05/30/2023	 533	<p>NOTICE OF FILING OF OFFICIAL TRANSCRIPT of Trial (Volume 5) Proceedings held on 03/23/2023 before Judge Rodney Gilstrap. Court Reporter/Transcriber: Shawn McRoberts, Telephone number: (903) 923-8546.</p> <p>NOTICE RE REDACTION OF TRANSCRIPTS: The parties have seven (7) days to file with the Court a Notice of Intent to Request Redaction of this transcript. If no such Notice is filed, the transcript will be made remotely electronically available to the public without redaction after 90 calendar days. The policy is located on our website at www.txed.uscourts.gov</p> <p>Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER.. Motion to Redact due 6/20/2023. Release of Transcript Restriction set for 8/28/2023. (smm,) (Entered: 05/30/2023)</p>
05/30/2023	 534	<p>NOTICE OF FILING OF OFFICIAL TRANSCRIPT of Trial (Volume 6) Proceedings held on 03/24/2023 before Judge Rodney Gilstrap. Court Reporter/Transcriber: Shawn McRoberts, Telephone number: (903) 923-8546.</p> <p>NOTICE RE REDACTION OF TRANSCRIPTS: The parties have seven (7) days to file with the Court a Notice of Intent to Request Redaction of this transcript. If no such Notice is filed, the transcript will be made remotely electronically available to the public without redaction after 90 calendar days. The policy is located on our website at www.txed.uscourts.gov</p> <p>Transcript may be viewed at the court public terminal or purchased through the Court Reporter/Transcriber before the deadline for Release of Transcript Restriction. After that date it may be obtained through PACER.. Motion to Redact due 6/20/2023. Release of Transcript Restriction set for 8/28/2023. (smm,) (Entered: 05/30/2023)</p>
05/31/2023	535	ORDER re 524 Proposed Bill of Costs filed by TQ Delta, LLC. Signed by District Judge Rodney Gilstrap on 5/31/2023. (nkl,) (Entered: 05/31/2023)

05/31/2023	536	BILL OF COSTS. Costs Taxed in the amount of \$246,208.25. (nkl,) (Entered: 05/31/2023)
05/31/2023	537	MOTION for Judgment as a Matter of Law <i>and Motions for a New Trial for US Patent Nos 7,570,686 and 8,462,835</i> by TQ Delta, LLC. (Attachments: # 1 Proposed Order Proposed Order)(McAndrews, Peter) (Entered: 05/31/2023)
05/31/2023	 538	SEALED MOTION <i>for a New Trial on Damages and the Validity of US Patent 8,462,835 and Conditional Motion for a New Trial on Additional Damages for Infringement of US Patent Nos. 8,462,835 8,090,008 and 7,570,686</i> by TQ Delta, LLC. (Attachments: # 1 Exhibit Exhibit A, # 2 Exhibit Exhibit B, # 3 Proposed Order Proposed Order)(McAndrews, Peter) (Entered: 05/31/2023)
05/31/2023	 539	SEALED MOTION <i>for Judgment as a Matter of Law that Defendants' Accused Products Infringe Claim 14 of US Patent No 8,090,008</i> by TQ Delta, LLC. (Attachments: # 1 Exhibit Exhibit A, # 2 Affidavit/Declaration Declaration of Rajendra Chiplunkar, # 3 Proposed Order Proposed Order) (McAndrews, Peter) (Entered: 05/31/2023)
05/31/2023	 540	FILED IN ERROR PER ATTORNEY SEALED MOTION <i>Renewed Motion for Judgment as a Matter of Law</i> by ARRIS Enterprises, LLC, ARRIS Global Ltd., ARRIS International Limited, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Declaration of Ross Barton, # 2 Exhibit 36-A, # 3 Exhibit 36-B, # 4 Exhibit 37, # 5 Exhibit 38-A, # 6 Exhibit 38-B, # 7 Exhibit 40, # 8 Exhibit 65-A, # 9 Exhibit 65-B, # 10 Exhibit 68, # 11 Exhibit 74, # 12 Exhibit 78, # 13 Exhibit 81, # 14 Exhibit 124-B, # 15 Exhibit 135-B, # 16 Exhibit DDX-006, # 17 Proposed Order)(Barton, Ross) Modified on 6/1/2023 (nkl,). (Entered: 05/31/2023)
05/31/2023	 541	SEALED MOTION <i>Renewed Motion for Judgment as a Matter of Law</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # 1 Declaration of Ross Barton, # 2 Exhibit 36-A, # 3 Exhibit 36-B, # 4 Exhibit 37, # 5 Exhibit 38-A, # 6 Exhibit 38-B, # 7 Exhibit 40, # 8 Exhibit 65-A, # 9 Exhibit 65-B, # 10 Exhibit 68, # 11 Exhibit 74, # 12 Exhibit 78, # 13 Exhibit 81, # 14 Exhibit 124-B, # 15 Exhibit 135-B, # 16 Exhibit DDX-006, # 17 Proposed Order)(Barton, Ross) (Entered: 05/31/2023)
06/01/2023		***FILED IN ERROR PER ATTORNEY. Document # 540, SEALED MOTION Renewed Motion for Judgment as a Matter of Law. PLEASE IGNORE.*** (nkl,) (Entered: 06/01/2023)
06/07/2023	542	REDACTION to 538 SEALED MOTION <i>for a New Trial on Damages and the Validity of US Patent 8,462,835 and Conditional Motion for a New Trial on Additional Damages for Infringement of US Patent Nos. 8,462,835 8,090,008 and 7,570,686</i> by TQ Delta, LLC. (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Proposed Order)(McAndrews, Peter) (Entered: 06/07/2023)
06/07/2023	543	REDACTION to 539 SEALED MOTION <i>for Judgment as a Matter of Law that Defendants' Accused Products Infringe Claim 14 of US Patent No 8,090,008</i> by TQ Delta, LLC. (Attachments: # 1 Exhibit A, # 2 Affidavit/Declaration Declaration of Rajendra Chiplunkar, # 3 Proposed Order)(McAndrews, Peter) (Entered: 06/07/2023)

06/07/2023	<u>544</u>	REDACTION to <u>541</u> SEALED MOTION <i>Renewed Motion for Judgment as a Matter of Law</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # <u>1</u> Declaration of Ross Barton, # <u>2</u> Exhibits 2-16 Filed Under Seal In Entirety, # <u>3</u> Proposed Order)(Barton, Ross) (Entered: 06/07/2023)
06/14/2023	 <u>545</u>	SEALED RESPONSE to Motion re <u>541</u> SEALED MOTION <i>Renewed Motion for Judgment as a Matter of Law</i> filed by TQ Delta, LLC. (McAndrews, Peter) (Additional attachment(s) added on 6/15/2023: # <u>1</u> Proposed Order) (nkl,). (Entered: 06/14/2023)
06/14/2023	<u>546</u>	RESPONSE to Motion re <u>537</u> MOTION for Judgment as a Matter of Law <i>and Motions for a New Trial for US Patent Nos 7,570,686 and 8,462,835 filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc..</i> (Attachments: # <u>1</u> Declaration of Ross Barton, # <u>2</u> Exhibit A, # <u>3</u> Exhibit B, # <u>4</u> Proposed Order)(Barton, Ross) (Entered: 06/14/2023)
06/14/2023	<u>547</u>	FILED IN ERROR Additional Attachments to Main Document: <u>545</u> Sealed Response to Motion.. (McAndrews, Peter) Modified on 6/14/2023 (nkl,). (Entered: 06/14/2023)
06/14/2023		***FILED IN ERROR - proposed order should not be filed on the docket as a separate entry. Document # 547, Additional Attachments to Main Document. PLEASE IGNORE.*** (nkl,) (Entered: 06/14/2023)
06/15/2023	 <u>548</u>	SEALED RESPONSE to <u>538</u> SEALED MOTION <i>for a New Trial on Damages and the Validity of US Patent 8,462,835 and Conditional Motion for a New Trial on Additional Damages for Infringement of US Patent Nos. 8,462,835 8,090,008 and 7,570,686</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # <u>1</u> Proposed Order)(Barton, Ross) (Entered: 06/15/2023)
06/15/2023	 <u>549</u>	SEALED RESPONSE to <u>539</u> SEALED MOTION <i>for Judgment as a Matter of Law that Defendants' Accused Products Infringe Claim 14 of US Patent No 8,090,008</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # <u>1</u> Declaration of Ross Barton, # <u>2</u> Exhibit A, # <u>3</u> Exhibit B, # <u>4</u> Exhibit C, # <u>5</u> Exhibit D, # <u>6</u> Proposed Order) (Barton, Ross) (Entered: 06/15/2023)
06/21/2023	<u>550</u>	REDACTION to <u>545</u> Sealed Response to Motion <i>Renewed Motion for Judgment as a Matter of Law</i> by TQ Delta, LLC. (Attachments: # <u>1</u> Proposed Order)(McAndrews, Peter) (Entered: 06/21/2023)
06/21/2023	<u>551</u>	REDACTION to <u>548</u> Sealed Response to Motion, by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: # <u>1</u> Proposed Order)(Barton, Ross) (Entered: 06/21/2023)
06/21/2023	<u>552</u>	REDACTION to <u>549</u> Sealed Response to Motion, by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Attachments: #

		1 Declaration of Ross Barton, # 2 Exhibit A, # 3 Exhibit B, # 4 Exhibit C, # 5 Exhibit D, # 6 Proposed Order)(Barton, Ross) (Entered: 06/21/2023)
06/21/2023	 553	SEALED REPLY in Support of 541 SEALED Renewed MOTION for Judgment as a Matter of Law filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Barton, Ross) (Entered: 06/21/2023)
06/21/2023	554	REPLY to Response to Motion re 537 MOTION for Judgment as a Matter of Law <i>and Motions for a New Trial for US Patent Nos 7,570,686 and 8,462,835 filed by TQ Delta, LLC.</i> (McAndrews, Peter) (Entered: 06/21/2023)
06/22/2023	 555	SEALED REPLY to Response to Motion re 538 SEALED MOTION <i>for a New Trial on Damages and the Validity of US Patent 8,462,835 and Conditional Motion for a New Trial on Additional Damages for Infringement of US Patent Nos. 8,462,835 8,090,008 and 7,570,686</i> filed by TQ Delta, LLC. (McAndrews, Peter) (Entered: 06/22/2023)
06/22/2023	 556	SEALED REPLY to Response to Motion re 539 SEALED MOTION <i>for Judgment as a Matter of Law that Defendants' Accused Products Infringe Claim 14 of US Patent No 8,090,008</i> filed by TQ Delta, LLC. (McAndrews, Peter) (Entered: 06/22/2023)
06/28/2023	557	SUR-REPLY to Reply to Response to Motion re 537 MOTION for Judgment as a Matter of Law <i>and Motions for a New Trial for US Patent Nos 7,570,686 and 8,462,835 filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc..</i> (Barton, Ross) (Entered: 06/28/2023)
06/28/2023	 558	SEALED SUR-REPLY to Reply to Response to Motion re 541 SEALED MOTION <i>Renewed Motion for Judgment as a Matter of Law</i> filed by TQ Delta, LLC. (McAndrews, Peter) (Entered: 06/28/2023)
06/28/2023	559	REDACTION to 553 Sealed Reply to Response to Motion, by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Barton, Ross) (Entered: 06/28/2023)
06/29/2023	560	REDACTION to 555 Sealed Reply to Response to Motion, by TQ Delta, LLC. (McAndrews, Peter) (Entered: 06/29/2023)
06/29/2023	561	REDACTION to 556 Sealed Reply to Response to Motion by TQ Delta, LLC. (McAndrews, Peter) (Entered: 06/29/2023)
06/29/2023	 562	SEALED SUR-REPLY to Reply to Response to 538 SEALED MOTION <i>for a New Trial on Damages and the Validity of US Patent 8,462,835 and Conditional Motion for a New Trial on Additional Damages for Infringement of US Patent Nos. 8,462,835 8,090,008 and 7,570,686</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Barton, Ross) (Entered: 06/29/2023)
06/29/2023	563	SUR-REPLY to Reply to Response to Motion re 539 SEALED MOTION <i>for Judgment as a Matter of Law that Defendants' Accused Products Infringe Claim 14 of US Patent No 8,090,008</i> filed by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc.,

		<i>CommScope Holding Company, Inc., Commscope Inc..</i> (Barton, Ross) (Entered: 06/29/2023)
07/05/2023	564	REDACTION to 558 Sealed Sur-Reply to Reply to Response to Motion by TQ Delta, LLC. (McAndrews, Peter) (Entered: 07/05/2023)
07/06/2023	565	REDACTION to 562 Sealed Sur-Reply to Reply to Response to Motion, by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Barton, Ross) (Entered: 07/06/2023)
08/25/2023	566	MEMORANDUM OPINION AND ORDER 537 MOTION for Judgment as a Matter of Law <i>and Motions for a New Trial for US Patent Nos 7,570,686 and 8,462,835</i> filed by TQ Delta, LLC.. Signed by District Judge Rodney Gilstrap on 08/24/2023. (klc,) (Entered: 08/25/2023)
09/06/2023	 567	*SEALED* SEALED MEMORANDUM OPINION AND ORDER re 538 SEALED MOTION for a New Trial on Damages and the Validity of US Patent 8,462,835 and Conditional Motion for a New Trial on Additional Damages for Infringement of US Patent Nos. 8,462,835 8,090,008 and 7,570,686. Signed by District Judge Rodney Gilstrap on 9/6/2023. (nkl,) (Entered: 09/06/2023)
09/13/2023	568	REDACTION to 567 <i>MEMORANDUM AND ORDER</i> by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc.. (Barton, Ross) (Entered: 09/13/2023)
02/15/2024	  569	*SEALED* SEALED MEMORANDUM OPINION AND ORDER. Signed by District Judge Rodney Gilstrap on 2/15/2024. (nkl,) (Entered: 02/15/2024)
02/15/2024	  570	*SEALED* SEALED MEMORANDUM OPINION AND ORDER. Signed by District Judge Rodney Gilstrap on 2/15/2024. (nkl,) (Entered: 02/15/2024)
02/22/2024	571	JOINT NOTICE of Redaction by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Attachments: # 1 Public Version of Dkt. No. 569 Memorandum Opinion and Order)(Barton, Ross) (Entered: 02/22/2024)
02/22/2024	572	JOINT NOTICE of Redaction by ARRIS Enterprises, LLC, ARRIS Solutions, Inc., ARRIS Technology, Inc., ARRIS US Holdings, Inc., CommScope Holding Company, Inc., Commscope Inc. (Attachments: # 1 Public Version of Dkt. No. 570 Memorandum Opinion and Order)(Barton, Ross) (Entered: 02/22/2024)
03/15/2024	573	NOTICE OF APPEAL - FEDERAL CIRCUIT by TQ Delta, LLC. Filing fee \$ 605, receipt number ATXEDC-10033511. (McAndrews, Peter) (Entered: 03/15/2024)

**THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

TQ DELTA, LLC,
Plaintiff,

V.

COMMSCOPE HOLDING COMPANY,
INC., COMMSCOPE INC., ARRIS
INTERNATIONAL LIMITED, ARRIS
GLOBAL LTD., ARRIS US HOLDINGS
INC., ARRIS SOLUTIONS, INC., ARRIS
TECHNOLOGY, INC., and ARRIS
ENTERPRISES, LLC,
Defendants.

TQ DELTA, LLC,
Plaintiff,

V.

NOKIA CORP., NOKIA SOLUTIONS
AND NETWORKS OY, and NOKIA OF
AMERICA CORP.,
Defendants.

CASE NO. 2:21-CV-310-JRG
(Lead Case)

CASE NO. 2:21-CV-309-JRG

CLAIM CONSTRUCTION MEMORANDUM AND ORDER

Before the Court is the Opening Claim Construction Brief (Dkt. No. 107) filed by Plaintiff TQ Delta, LLC (“Plaintiff” or “TQ Delta”). Also before the Court are the Responsive Claim Construction Brief (Dkt. No. 135) filed by Defendants CommScope Holding Company, Inc., CommScope Inc., ARRIS US Holdings, Inc., ARRIS Solutions, Inc., ARRIS Technology (collectively, “CommScope Defendants”), Nokia of America Corp., Nokia Corp., and Nokia Solutions and Networks Oy (collectively, “Nokia Defendants”) (all, collectively, “Defendants”), Plaintiff’s reply (Dkt. No. 140), and Defendants’ supplemental brief (Dkt. No. 157).

The Court held a hearing on June 1, 2022.

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I. BACKGROUND

Plaintiff submits that “[t]his case generally relates to communications technology for DSL-based systems.” (Dkt. No. 124, at 1.)

Plaintiff alleges infringement of United States Patents No. 7,453,881 (“the ’881 Patent”), 7,570,686 (“the ’686 Patent”), 7,844,882 (“the ’882 Patent”), 8,090,008 (“the ’008 Patent”), 8,276,048 (“the ’048 Patent”), 8,462,835 (“the ’835 Patent”), 8,468,411 (“the ’411 Patent”), 8,495,473 (“the ’5473 Patent”), 8,594,162 (“the ’162 Patent”), 8,595,577 (“the ’577 Patent”), 8,937,988 (“the ’988 Patent”), 9,014,193 (“the ’193 Patent”), 9,094,348 (“the ’348 Patent”), 9,154,354 (“the ’354 Patent”), 9,300,601 (“the ’601 Patent”), 9,485,055 (“the ’055 Patent”), 9,547,608 (“the ’608 Patent”), 9,894,014 (“the ’014 Patent”), 10,044,473 (“the ’4473 Patent”), 10,409,510 (“the ’510 Patent”), 10,567,112 (“the ’112 Patent”), and 10,833,809 (“the ’809 Patent”) (collectively, “the patents-in-suit”).

As for the patents that are at issue in these claim construction proceedings, Defendants submit that “the parties refer to the [patent] families by the nomenclature used in the co-pending Delaware Cases that TQ Delta has filed against other defendants: Families 1, 2, 3, 4, 6, 9, and 10,” and the parties submit that the disputed terms in these patents have been construed by the District of Delaware, such as in the rulings cited in the following chart:

<u>Name of Group of Patents</u>	<u>Patents</u>	<u>Prior Claim Construction</u>
“Family 1 Patents”	’686 Patent	<i>TQ Delta, LLC v. 2Wire, Inc.</i> , No. 1:13-CV-01835, Dkt. No. 477 (D. Del. Jan. 30, 2018) (Pl. Ex. 20) (Defs. Ex. 35) (“ <i>Delaware Family 1 CC Opinion</i> ”)

“Family 2 Patents”	’881 Patent ’193 Patent ’601 Patent ’014 Patent	<i>TQ Delta, LLC</i> , v. <i>2Wire, Inc.</i> , No. 1:13-CV-01835, Dkt. No. 486 (D. Del. Feb. 7, 2018) (Pl. Ex. 21) (Defs. Ex. 30) (“ <i>Delaware Family 2 CC Opinion</i> ”) <i>TQ Delta, LLC</i> v. <i>2Wire, Inc.</i> , 373 F. Supp. 3d 509, 523–24 (D. Del. 2019) (“ <i>Delaware Family 2 SJ Opinion</i> ”)
“Family 3 Patents”	’5473 Patent ’882 Patent ’608 Patent ’510 Patent ’048 Patent	<i>TQ Delta, LLC</i> v. <i>2Wire, Inc.</i> , 1:13-CV-01835-RGA, et al., Dkt. No. 445 (D. Del. Dec. 18, 2017) (Pl. Ex. 23) (“ <i>Delaware Family 3 CC Opinion</i> ”)
“Family 4 Patents”	’008 Patent	<i>TQ Delta, LLC</i> v. <i>2Wire, Inc.</i> , No. 1:13-CV-01835, Dkt. No. 473 (D. Del. Jan. 29, 2018) (Pl. Ex. 25) (Defs. Ex. 32) (“ <i>Delaware Family 4 CC Opinion</i> ”)
“Family 6 Patents”	’835 Patent ’112 Patent ’162 Patent	<i>TQ Delta, LLC</i> , v. <i>2Wire, Inc.</i> , No. 1:13-CV-01835, Dkt. No. 447 (D. Del. July 3, 2018) (Defs. Ex. 29) (“ <i>Delaware Family 6 CC Opinion</i> ”) <i>TQ Delta, LLC</i> v. <i>2Wire, Inc.</i> , No. 1:13-CV-01835, Dkt. No. 540 (D. Del. July 24, 2018) (Defs. Ex. 36) (“ <i>Delaware Family 6 CC Order</i> ”) <i>TQ Delta, LLC</i> v. <i>ADTRAN, Inc.</i> , No. 1:14-CV-00954-RGA, Dkt. No. 1377 (D. Del. Mar. 1, 2022). <i>TQ Delta, LLC</i> v. <i>2Wire, Inc.</i> , No. 1:13-CV-01835, Dkt. No. 1567 (D. Del. June 28, 2021) (“ <i>Delaware Family 6 SJ Opinion</i> ”)
“Family 9 Patents”	’055 Patent ’348 Patent ’809 Patent ’577 Patent ’411 Patent ’4473 Patent	<i>TQ Delta, LLC</i> v. <i>Zyxxel Commc’ns, Inc.</i> , No. 1:13-CV-02013, et al., Dkt. No. 521 (D. Del. May 8, 2018) (Pl. Ex. 24) (“ <i>Delaware Family 9 CC Opinion</i> ”)

“Family 10 Patents”	’354 Patent ’988 Patent	<i>TQ Delta, LLC v. ADTRAN, Inc.</i> , No. 1:14-CV-00954-RGA, Dkt. No. 375 (D. Del. Apr. 27, 2018) (as to related patent)
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II. LEGAL PRINCIPLES

It is understood that “[a] claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention.” *Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1340 (Fed. Cir. 1999). Claim construction is clearly an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970–71 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996).

“In some cases, however, the district court will need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period.” *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015) (citation omitted). “In cases where those subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that extrinsic evidence. These are the ‘evidentiary underpinnings’ of claim construction that we discussed in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal.” *Id.* (citing 517 U.S. 370).

To ascertain the meaning of claims, courts look to three primary sources: the claims, the specification, and the prosecution history. *Markman*, 52 F.3d at 979. The specification must contain a written description of the invention that enables one of ordinary skill in the art to make and use the invention. *Id.* A patent’s claims must be read in view of the specification, of which they are a part. *Id.* For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. *Id.* “One

This Court’s claim construction analysis is substantially guided by the Federal Circuit’s decision in *Phillips v. AWH Corporation*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). In *Phillips*, the court set forth several guideposts that courts should follow when construing claims. In particular, the court reiterated that “the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Id.* at 1312 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To that end, the words used in a claim are generally given their ordinary and customary meaning. *Id.* The ordinary and customary meaning of a claim term “is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1313. This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention and that patents are addressed to, and intended to be read by, others skilled in the particular art. *Id.*

Despite the importance of claim terms, *Phillips* made clear that “the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Id.* Although the claims themselves may provide guidance as to the meaning of particular terms, those terms are part of “a fully integrated written instrument.” *Id.* at 1315 (quoting *Markman*, 52 F.3d at 978). Thus, the *Phillips* court emphasized the specification as being the primary basis for construing the claims. *Id.* at 1314–17. As the Supreme Court stated long ago, “in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid in solving the doubt or in ascertaining the true intent and meaning of the language employed in the claims.” *Bates v. Coe*, 98 U.S. 31, 38 (1878). In addressing the role of the specification, the *Phillips* court quoted with approval its earlier observations from *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998):

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.

Phillips, 415 F.3d at 1316. Consequently, *Phillips* emphasized the important role the specification plays in the claim construction process.

The prosecution history also continues to play an important role in claim interpretation. Like the specification, the prosecution history helps to demonstrate how the inventor and the United States Patent and Trademark Office (“PTO”) understood the patent. *Id.* at 1317. Because the file history, however, “represents an ongoing negotiation between the PTO and the applicant,” it may lack the clarity of the specification and thus be less useful in claim

construction proceedings. *Id.* Nevertheless, the prosecution history is intrinsic evidence that is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims. *Id.*; see *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004) (noting that “a patentee’s statements during prosecution, whether relied on by the examiner or not, are relevant to claim interpretation”).

Phillips rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. The *en banc* court condemned the suggestion made by *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002), that a court should discern the ordinary meaning of the claim terms (through dictionaries or otherwise) before resorting to the specification for certain limited purposes. *Phillips*, 415 F.3d at 1319–24. According to *Phillips*, reliance on dictionary definitions at the expense of the specification had the effect of “focus[ing] the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent.” *Id.* at 1321. *Phillips* emphasized that the patent system is based on the proposition that the claims cover only the invented subject matter. *Id.*

Phillips does not preclude all uses of dictionaries in claim construction proceedings. Instead, the court assigned dictionaries a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula. The court did not impose any particular sequence of steps for a court to follow when it considers disputed claim language. *Id.* at 1323–25. Rather, *Phillips* held that a court must attach the appropriate weight to the intrinsic sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant.

The Supreme Court of the United States has “read [35 U.S.C.] § 112, ¶ 2 to require that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910, 134 S. Ct. 2120, 2129 (2014). “A determination of claim indefiniteness is a legal conclusion that is drawn from the court’s performance of its duty as the construer of patent claims.” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (citations and internal quotation marks omitted), *abrogated on other grounds by Nautilus*, 572 U.S. 898. “Indefiniteness must be proven by clear and convincing evidence.” *Sonix Tech. Co. v. Publ’ns Int’l, Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017).

“[P]rior orders in related cases do not bar the Court from conducting additional construction in order to refine earlier claim constructions.” *TQP Dev., LLC v. Intuit Inc.*, No. 2:12-CV-180-WCB, 2014 WL 2810016, at *6 (E.D. Tex. June 20, 2014) (Bryson, J., sitting by designation).

In general, however, prior claim construction proceedings involving the same patents-in-suit are “entitled to reasoned deference under the broad principals of *stare decisis* and the goals articulated by the Supreme Court in *Markman*, even though *stare decisis* may not be applicable *per se*.” *Maurice Mitchell Innovations, LP v. Intel Corp.*, No. 2:04-CV-450, 2006 WL 1751779, at *4 (E.D. Tex. June 21, 2006) (Davis, J.); *see TQP*, 2014 WL 2810016, at *6 (“[P]revious claim constructions in cases involving the same patent are entitled to substantial weight, and the Court has determined that it will not depart from those constructions absent a strong reason for doing so.”); *see also Teva*, 135 S. Ct. at 839–40 (“prior cases will sometimes be binding because of issue preclusion and sometimes will serve as persuasive authority”) (citation omitted); *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1329 (Fed. Cir. 2008) (noting “the importance of

In their March 14, 2022 P.R. 4-3 Joint Claim Construction and Prehearing Statement, the parties submitted that “[t]he parties do not presently have agreed claim constructions.” (Dkt. No. 107, at 2.)

The term numbering used herein corresponds to the numbering used by Plaintiff in Exhibit A to the March 14, 2022 P.R. 4-3 Joint Claim Construction and Prehearing Statement. (Dkt. No. 107, Ex. A.)

(Dkt. No. 107, Ex. A, at 1–2; *id.*, Ex. B, at 1; Dkt. No. 146, App’x A, at 2; Dkt. No. 149, App’x A, at 2, 4, 9 & 16.)

(a) The Parties' Positions

Plaintiff argues that “[o]ne of ordinary skill in the art would understand that a transceiver shares at least some common circuitry, as the Delaware Court concluded for this term.” (Dkt. No. 124, at 2–3.)

Defendants respond that Plaintiff’s proposal of requiring “common circuitry” lacks support in the intrinsic record, and Defendants argue that the Delaware construction is not binding and is inconsistent with this Court’s construction of “transceiver” in another case. (Dkt. No. 135, at 3.)

Plaintiff replies: “The accepted meaning of ‘transceiver’—which refers to a single device that can both transmit and receive—requires that the transmitter and receiver portions share common circuitry, as the Delaware Court found. Otherwise, it would not be a single device.” (Dkt. No. 140, at 1.)

At the June 1, 2022 hearing, Plaintiff argued that “transceiver” is a portmanteau of “transmitter” and “receiver” and thus connotes something more specific than merely putting a transmitter and a receiver together. Defendants responded that the transmitter and the receiver within a transceiver *may* share circuitry, but not necessarily.

(b) Analysis

The District of Delaware noted that “[t]he specification does not provide an explicit definition of transceiver,” found that “[e]valuating the intrinsic evidence in light of the dictionary definitions provided [by Plaintiff] suggests that a POSA would understand the transmitter and receiver portions to share common circuitry or components,” and construed the term “transceiver” in these patents to mean “a communications device capable of transmitting and

receiving data wherein the transmitter portion and receiver portion share at least some common circuitry.” *Delaware Family 1 CC Opinion* at 4–5 (citing *Phillips*, 415 F.3d at 1318).

Defendants do not persuasively justify departing from the Delaware construction. In particular, the dictionary definitions of “transceiver” cited by Plaintiff and considered by the District of Delaware are persuasive that a person of ordinary skill in the art would understand the term “transceiver” as referring not merely to a device that includes both a transmitter and a receiver but rather to a device in which a transmitter portion and a receiver portion share at least some common circuitry. (*See id.*; *see also* Dkt. No. 124, at 3; *id.*, Ex. 16, *Merriam Webster Dictionary* 1253 (10th ed. 1998) (“a radio transmitter-receiver that uses many of the same components for both transmission and reception”); *id.*, Ex. 17, *IEEE Standard Dictionary of Electrical and Electronics Terms* 1028 (1988) (“The combination of radio transmitting and receiving equipment in a common housing . . . and employing common circuit components for both transmitting and receiving.”); *Delaware Family 1 CC Opinion* at 4; *TQ Delta, LLC v. 2Wire, Inc.*, No. 1:13-CV-01835 (D. Del.), Dkt. No. 342, Aug. 22, 2017 Joint Claim Construction Brief, at 24.) Defendants do not show any error in the consideration of this evidence by the District of Delaware. *See Phillips*, 415 F.3d at 1318 (“Because dictionaries, and especially technical dictionaries, endeavor to collect the accepted meanings of terms used in various fields of science and technology, those resources have been properly recognized as among the many tools that can assist the court in determining the meaning of particular terminology to those of skill in the art of the invention.”) (citation omitted).

The specification disclosures cited by Defendants do not compel otherwise, as disclosure of a “transmitter section” and a “receiver section” is not inconsistent with “transceiver” being understood to connote at least some amount of overlap between “sections.” (*See* Dkt. No. 135,

at 2–3; *see also* ’686 Patent at 2:1–5 (“Each modem includes a transmitter section for transmitting data and a receiver section for receiving data . . .”).) Also, Plaintiff points out that the ’882 Patent appears to contemplate overlap of circuitry, disclosing for example than “an exemplary transceiver could comprise a shared interleaver/deinterleaver memory.” ’882 Patent at 5:33–39.

Finally, Defendants cite this Court’s construction of the term “transceiver” in different patents as meaning “a device that transmits and receives data.” *Wi-LAN Inc. v. HTC Corp.*, No. 2:11-CV-68-JRG, Dkt. No. 302, slip op. at 8 (E.D. Tex. Apr. 11, 2013). That construction was agreed upon by the parties in that case (*see id.*), and Defendants show no indication that those parties had any dispute regarding whether the transmitter portion and receiver portion share at least some common circuitry. Defendants’ reliance on *Wi-LAN* is therefore unpersuasive.

The Court accordingly hereby construes **“transceiver”** to mean **“a communications device capable of transmitting and receiving data wherein the transmitter portion and receiver portion share at least some common circuitry.”**

2. “configurable to,” “operable,” and “operable to”

<p style="text-align: center;">“configurable to” “operable” “operable to”</p> <p style="text-align: center;">’193 Patent, Claims 1, 9 ’601 Patent, Claim 8 ’014 Patent, Claim 1 (Family 2)</p> <p style="text-align: center;">’608 Patent, Claim 2 ’510 Patent, Claim 22 (Family 3)</p> <p style="text-align: center;">’112 Patent, Claim 8 (Family 6)</p> <p style="text-align: center;">’577 Patent, Claim 16 ’348 Patent, Claims 1, 9 ’055 Patent, Claim 11 (Family 9)</p> <p style="text-align: center;">’354 Patent, Claim 10 ’988 Patent, Claim 16 (Family 10)</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning, which is: “able to be configured” / “capable” / “capable to”	Plain and ordinary meaning, not mere capability

(Dkt. No. 107, Ex. A, at 39–40; *id.*, Ex. B, at 5; Dkt. No. 146, App’x A, at 3; Dkt. No. 149, App’x A, at 24, 27, 28, 29 & 32.)

(a) The Parties’ Positions

Plaintiff argues:

A plain reading of the claims indicates that the “operable to” / “configurable to” terms mean that the claimed transceivers must be capable of performing the recited claim elements. Defendants, through their negative limitation “not mere capability,” attempt to read out functionality present in an accused transceiver but

Defendants respond that the plain and ordinary meaning of “operable to” and “configurable to” does *not* encompass mere capability. (Dkt. No. 135, at 3.) In other words, Defendants argue that “[t]hese terms require structure that presently is ‘operable to’ or ‘configurable to’ perform the stated tasks, not merely capable of being *modified* to do so.” (*Id.*, at 3–4.) Defendants also submit that their proposal is consistent with rulings by the District of Delaware as well as this Court’s prior constructions of “operable to” in other cases. (*Id.*, at 4.)

At the June 1, 2022 hearing, Plaintiff urged that all of these terms relate to capability, not actual operation. In response, Defendants stated that they will not argue that Plaintiff must prove that the accused devices are taken out of their packaging, plugged in, and turned on, but Defendants explained that they are arguing that the functionality must actually be built into the device. Defendants expressed concern that Plaintiff might accuse a functionality that is set forth in an industry standard and that Plaintiff might rely on a hypothetical possibility that such

functionality could have been built into an accused device (even if that functionality is absent in the actual accused device).

(b) Analysis

Claim 1 of the '193 Patent, for example, recites:

1. A device comprising:

a plurality of transceivers *configurable to* simultaneously operate with a combination of bonded and unbonded transceivers, wherein a first transceiver of the plurality of transceivers is *operable* at a first data rate, and a second transceiver of the plurality of transceivers is simultaneously *operable* at a second data rate that is different than the first data rate, wherein the first and second transceivers are *operable* as bonded transceivers and wherein a third transceiver, of the plurality of transceivers, is simultaneously *operable* at a third data rate and the third transceiver is not bonded with any other transceiver.

As a general matter, the Court of Appeals for the Federal Circuit has noted that “configured to” is narrower than “capable of.” *Aspex Eyewear, Inc. v. Marchon Eyewear, Inc.*, 672 F.3d 1335, 1349 (Fed. Cir. 2012). Also, the District of Delaware discussed “configurable” in the *Delaware Family 2 CC Opinion* at pages 8–11 (in the context of discussing the term “plurality of bonded transceivers”), such as that “‘configurability,’ in the context of the asserted claims, has a narrower meaning than ‘capability.’” The District of Delaware further discussed “configurable to” in the *ADTRAN* case (as to a different patent held by Plaintiff), construing “configured to” and “configurable to” to mean “includes the necessary hardware and software for performing the functionality recited in the claim without the need to rebuild, rewrite or recompile the code for, or redesign any of that hardware or software.” *See TQ Delta, LLC v. ADTRAN, Inc.*, No. 1:14-CV-00954-RGA, Dkt. No. 1319, slip op. at 8; *see id.* at 7–11 (D. Del. Mar. 30, 2021).

Particularly because the disputed term in the present case is not “configured” but rather is “configurable,” Plaintiff’s proposal of “able to be configured” is appropriate. Of note, in ruling

on motions for summary judgment regarding the '835 Patent, the District of Delaware cited the *ADTRAN* decision (*id.*) and further stated: “As I explained in that case, ‘configurable to’ does require that the source code required to implement the claimed functionality be present in the invention, but the term does not require that the functionality be enabled in the invention’s initial configuration (i.e., as provided to a consumer).” *Delaware Family 6 SJ Opinion* at 7. The Court’s own prior constructions of “configured to,” cited here by Defendants, are of limited persuasive value in construing the different term “configurable.” (*See* Dkt. No. 135, at 4.) Also, Plaintiff’s proposal that “configurable” means “able to be configured” is consistent with the meaning of “configurable” in common parlance, and Defendants have not shown that the patentee used “configurable” according to any technical or specialized meaning. *See Phillips*, 415 F.3d at 1314 (“In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.”).

In sum, as to the dispute regarding the claim term “configurable to” in the present case, Plaintiff’s proposal of “able to be configured” is sufficiently clear and can be applied in the context of a particular accused device. *See id.*; *see also Versata Software, Inc. v. SAP Am., Inc.*, 717 F.3d 1255, 1262 (Fed. Cir. 2013) (“[W]hen a user must activate the functions programmed into a piece of software by selecting those options, the user is only activating the means that are already present in the underlying software.”) (citations and internal quotation marks omitted).

As to the terms “operable” and “operable to,” however, the applicable principle is: “that a device is *capable* of being modified to operate in an infringing manner is not sufficient, by itself, to support a finding of infringement.” *Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d

1316, 1330 (Fed. Cir. 2001) (emphasis added). Plaintiff’s proposals of “capable” and “capable to” are therefore potentially overbroad because “capable” might be interpreted broadly as allowing for an ability that arises after modification. The *Iron Oak* and *e-Watch* cases cited by Plaintiff did not address this issue. See *Iron Oak Techs., LLC v. Microsoft Corp.*, 857 F. App’x 644, 649 (Fed. Cir. May 24, 2021) (as to a term that recited “operable to create patched operating code . . .,” addressing a dispute regarding the timing of the operation); see also *e-Watch Inc. v. Apple, Inc.*, No. 2:13-CV-1061, 2015 WL 1387947, at *6 (E.D. Tex. Mar. 25, 2015) (in addressing dispute regarding whether claims were improper mixed method-apparatus claims, finding that claim language reciting “being operable to” showed that the “patentee understood how to draft claim language that referred to the capabilities of an element”). Indeed, Plaintiff acknowledges that it does not seek an interpretation that would encompass “mere capability to perform a function in the abstract, such as through re-writing code.” (Dkt. No. 140, at 2.)

Instead, the terms “operable” and “operable to” should be construed to refer to being *configured* to operate in the recited manner. The District of Delaware reached a similar conclusion in the *ADTRAN* case as to another patent held by Plaintiff. See *TQ Delta, LLC v. ADTRAN, Inc.*, No. 1:14-CV-00954-RGA, Dkt. No. 909, slip op. at 9 (D. Del. Oct. 31, 2019) (“I find that in view of the relevant cases, ‘operable to’ requires something more than ‘capable of.’ I will give ‘operable to’ its plain and ordinary meaning, which is narrower than ‘capable of.’”); see *id.* at 7–9.

As to different claims of the ’577 Patent that were at issue in *ADTRAN*, the District of Delaware construed “operable to” to mean “in operation to”:

ADTRAN argues that the claim language “operable to” requires that the multicarrier transceiver actually operates “to receive at least one packet using deinterleaving, and transmit at least one message without using interleaving,” and thus, that the claims recite actual operation. I agree.

Thus, I will construe “operable to” to mean “in operation to.”

Id., Dkt. No. 800, slip op. at 5–7 (D. Del. Sept. 10, 2019). This decision by the District of Delaware also rejected Plaintiff’s argument that “operable to” should be construed to mean “capable of”:

It appears that the claims consistently use the term “operable to” when describing the “multicarrier transceiver” that is part of the claimed apparatus. (*See, e.g.*, ’577 patent, cls. 53, 55). In contrast, the claims use “capable of” when defining the apparatus itself, i.e., “The apparatus of claim 53, wherein the apparatus is a linecard that is *capable* of transporting video, voice, and data.” (*id.*, cl. 56; *see also, id.*, cls. 19–20, 26–27, 33–34, 40–41, 48–49, 56–57). The claims of the ’784 patent do not use the term “capable of.” (*See, e.g.*, ’784 patent, cl. 7). The difference in usage indicates that the patentee intended for “operable to” and “capable of” to have different meanings. While the apparatus itself needs only to be capable of certain functionalities (transporting video, voice, and data), the transceiver needs to operate in a manner that performs the functions stated in the claim (transmit at least one packet using interleaving, and receive at least one message without using interleaving).

Id. at 6 (footnote omitted). In this context, a fair reading of the District of Delaware’s construction of claims in the ’577 Patent is that in construing “operable to” to mean “in operation to,” the District of Delaware distinguished mere capability and instead required actual configuration to operate in the recited manner. At the June 1, 2022 hearing, Plaintiff argued that the District of Delaware erred by requiring “operation,” but when this construction by the District of Delaware is read in the context of the court’s analysis distinguishing mere capability, “in operation to” does not appear to require actively operating but rather refers to what occurs when in operation.

That is, “operable” (or “operation”), at least in the context of the patents here at issue, is *not* tantamount to operating. At the June 1, 2022 hearing, Defendants stated that they will not

For example, “when ‘a user must activate the functions programmed into a piece of software by selecting those options, the user is only activating the means that are already present in the underlying software.’” *Versata Software, Inc. v. SAP Am., Inc.*, 717 F.3d 1255, 1262 (Fed.

<u>Term</u>	<u>Construction</u>
“configurable to”	“able to be configured”
“operable”	“configured”
“operable to”	“configured to”

Plaintiff submits that “[t]he Family 1 Patents relate to communicating certain specified test and/or diagnostic information about the communication channel over which the multicarrier transceiver communicates.” (Dkt. No. 124, at 1 (citation omitted).)

The Abstract of the '686 Patent states:

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information transmission mode is initiated by transmitting an initiate diagnostic link mode message to a receiving modem accompanied by a cyclic redundancy check (CRC). The receiving modem determines, based on the CRC, if a robust communications channel is present. If a robust communications channel is present, the two modems can initiate exchange of the diagnostic and/or test information. Otherwise, the transmission power of the transmitting modem is increased and the initiate diagnostic link mode message re-transmitted to the receiving modem until the CRC is determined to be correct.

3. “each bit in the diagnostic message is mapped to at least one DMT symbol,” “DMT symbols that are mapped to one bit of the diagnostic message,” and “at least one bit in the diagnostic message is mapped to at least one DMT symbol”

<p align="center">“each bit in the diagnostic message is mapped to at least one DMT symbol” ’686 Patent, Claim 17</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“each bit in the diagnostic message is communicated using a modulation scheme where a DMT symbol (or two or more DMT symbols) represents only a single bit of the diagnostic message”	Indefinite
<p align="center">“DMT symbols that are mapped to one bit of the diagnostic message” ’686 Patent, Claim 36</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“at least one bit in the diagnostic message is communicated using a modulation scheme where two or more DMT symbols represent only the same single bit of the diagnostic message”	Indefinite

<p align="center">“at least one bit in the diagnostic message is mapped to at least one DMT symbol” ’686 Patent, Claim 40</p>	
<p>Plaintiff’s Proposed Construction</p>	<p>Defendants’ Proposed Construction</p>
<p>“at least one bit in the diagnostic message is communicated using a modulation scheme where a DMT symbol (or two or more DMT symbols) represents only a single bit of the diagnostic message”</p>	<p>Indefinite</p>

(Dkt. No. 107, Ex. A, at 55; *id.*, Ex. B, at 3; *see* Dkt. No. 146, App'x A, at 3–4; Dkt. No. 149, App'x A, at 34.)

As to “at least one bit in the diagnostic message is mapped to at least one DMT symbol” in Claim 40 of the ’686 Patent, this term does not appear in the parties’ P.R. 4-5(d) Joint Claim Construction Chart, so Plaintiff evidently no longer asserts the claim in which this term appears. (*See id.*) The Court therefore does not further address this term.

(a) The Parties' Positions

Plaintiff argues that “TQ Delta proposes the construction adopted by the Delaware Court (which also rejected a definiteness challenge),” and “[t]hose in the art understand that ‘each bit in the diagnostic message is mapped to at least one DMT symbol’ refers to a more robust form of communication utilized in the presence of ‘noise’ to ensure more reliable communication of the diagnostic message.” (Dkt. No. 124, at 5 (citation omitted).) Plaintiff also argues, for example, that “[t]he fact that the claims cover various scenarios or that a mapping function would need to be defined does not render them indefinite.” (*Id.*, at 6 (citation omitted).)

Defendants respond that “this language is subject to any number of interpretations, resulting in confusion as to what is intended,” and “the specification confirms the ambiguity of the term.” (Dkt. No. 135, at 5–6 (citation omitted).) For example, Defendants argue that “the

At the June 1, 2022 hearing, in response to inquiry by the Court, Plaintiff stated that construing these terms to have their plain meaning would be sufficient if the Court rejects Defendants' indefiniteness argument.

The District of Delaware rejected an indefiniteness challenge as to the term “each bit in the diagnostic message is mapped to at least one DMT signal” in Claim 5 of the ’686 Patent and construed the term to mean “each bit in the diagnostic message is mapped to either (1) one signal resulting from DMT modulation or (2) more than one signal resulting from DMT modulation.” *Delaware Family I CC Opinion* at 14–17.

In the diagnostic link mode, the RT modem sends diagnostic and test information in the form of a collection of information bits to the CO modem that are, for example, modulated by *using one bit per DTM [sic, DMT] symbol* modulation, as is used in the C-Rates1 message in the ITU and ANSI ADSL standards, where the symbol may or may not include a cyclic prefix. . . .

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'686 Patent at 3:44–57 (emphasis added).

Defendants argue that this disclosure uses “mapped” in relation to a “signal” rather than a “symbol,” but this appears as part of a discussion of modulating bits using “one bit per DMT *symbol* modulation” and thus on its face is relevant to determining whether a person of ordinary skill in the art would understand the word “mapped” in the context of the patent and the terms here at issue. (*Id.* (emphasis added).)

Also, Defendants submit the opinion of their expert that “mapped” is unclear and “could mean that the same bit value is represented by one symbol, two symbols, or every symbol that results from a given DMT signal,” and “[a] person of skill in the art would understand that you have to define a mapping function with specificity in order to implement that particular function.” (Dkt. No. 135, Ex. 23, Mar. 14, 2022 McNair Decl., at ¶ 46.)

On balance, Defendants do *not* persuasively show that a potential need for a “mapping function” renders the claim unclear. Defendants’ expert opines that a person of ordinary skill would not know how to map a bit of data in accordance with these claims (*see id.* at ¶ 50–54), but while this argument perhaps might bear upon the enablement and written description requirements, Defendants’ arguments in this regard do not demonstrate any lack of reasonable certainty as to the scope of these claims.

Defendants thus do not meet their burden to show any lack of reasonable certainty as to the scope of these terms. *See Nautilus*, 572 U.S. at 910; *see also Sonix*, 844 F.3d at 1377. Defendants do not present any alternative proposed constructions. Although Plaintiff has proposed constructions, no further construction is necessary, as Plaintiff agreed at the June 1, 2022 hearing, and indeed the District of Delaware included the word “mapped” in its construction. *Delaware Family 1 CC Opinion* at 14. The Court having rejected Defendants’

indefiniteness argument, and in the absence of any alternative proposed constructions from Defendants, no further construction of these disputed terms is necessary. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”); *see also O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (“[D]istrict courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.”); *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1207 (Fed. Cir. 2010) (“Unlike *O2 Micro*, where the court failed to resolve the parties’ quarrel, the district court rejected Defendants’ construction.”); *ActiveVideo Networks, Inc. v. Verizon Commc’ns, Inc.*, 694 F.3d 1312, 1326 (Fed. Cir. 2012); *Summit 6, LLC v. Samsung Elecs. Co., Ltd.*, 802 F.3d 1283, 1291 (Fed. Cir. 2015); *Bayer Healthcare LLC v. Baxalta Inc.*, 989 F.3d 964, 977–79 (Fed. Cir. 2021).

The Court therefore hereby construes “each bit in the diagnostic message is mapped to at least one DMT symbol” and “DMT symbols that are mapped to one bit of the diagnostic message” to have their **plain meaning**.

4. “array representing frequency domain received idle channel noise information”

<p align="center">“array representing frequency domain received idle channel noise information” ’686 Patent, Claims 17, 36</p>	
<p>Plaintiff’s Proposed Construction</p>	<p>Defendants’ Proposed Construction</p>
<p>“ordered set of values representative of noise in the frequency domain that was received by a transceiver on respective subchannels in the absence of a transmission signal on the received channel”</p>	<p>“array of values representative of noise in the frequency domain that was received by a transceiver on respective subchannels in the absence of a transmission signal”</p>

(Dkt. No. 107, Ex. A, at 57; *id.*, Ex. B, at 4; Dkt. No. 146, App’x A, at 3; Dkt. No. 149, App’x A, at 36.)

(a) The Parties’ Positions

Plaintiff submits that “TQ Delta’s proposed construction is the same construction adopted by the Delaware Court,” and Plaintiff argues that “the specification makes clear that a complete absence of any transmission signal is not required.” (Dkt. No. 124, at 7 (citation omitted).) As to Plaintiff’s proposal that an “array” is an “ordered set of values,” Plaintiff submits that “TQ Delta does not understand there to be a substantive dispute regarding the meaning of [‘array’], and TQ Delta’s plain-meaning construction will help the jury.” (*Id.*)

Defendants respond that “‘array’ is a commonly accepted term of art and need not be further construed,” “there is no record support for restricting the claimed ‘array’ to an ‘ordered set’ of values as TQ Delta proposes,” and “TQ Delta’s proposed addition of ‘on the received channel’ is contrary to the specification.” (Dkt. No. 135, at 7 (citation omitted).)

Plaintiff replies that “the claim only requires that one channel is idle—the ‘idle channel’—and is silent about what may or may not be transmitting on other channels.” (Dkt. No. 140, at 3.) Plaintiff argues that “Defendants’ construction improperly narrows the claim (to an impractical or impossible degree) by requiring a complete absence of transmission on *every* channel, not just the channel being measured.” (*Id.*)

(b) Analysis

Claim 17 of the ’686 Patent, for example, recites (emphasis added):

17. An information storage media comprising instructions that when executed communicate diagnostic information over a communication channel using multicarrier modulation comprising:

instructions that when executed direct a transceiver to receive or transmit an initiate diagnostic mode message; and

instructions that when executed transmit a diagnostic message from the transceiver using multicarrier modulation, wherein the diagnostic message comprises a plurality of data variables representing the diagnostic information about the communication channel and each bit in the diagnostic message is mapped to at least one DMT symbol, and wherein one variable comprises an *array representing frequency domain received idle channel noise information*.

The District of Delaware construed this disputed term to mean “ordered set of values representative of noise in the frequency domain that was received by a transceiver on respective subchannels in the absence of a transmission signal on the received channel.” *Delaware Family 1 CC Opinion* at 7–9.

First, the parties dispute whether the constituent term “array” should be included in the construction or should instead be construed to mean “ordered set of values.” The specification uses the word “array” without elaboration. *See* ’686 Patent at 4:38–42 (“Many variables that represent the type of diagnostic and test information that are used to analyze the condition of the link are sent from the RT [(remote terminal)] modem to the CO [(central office)] modem. These variables can be, for example, *arrays* with different lengths depending on, for example, information in the initiate diagnostic mode message.”) (emphasis added).

The District of Delaware included the phrase “ordered set of values” in its construction of the present term in the ’686 Patent, both sides in that case having included that phrase in their proposed constructions. *See Delaware Family 1 CC Opinion* at 7. Plaintiff does not persuasively justify departing from that interpretation of “array” as meaning “ordered set of values,” particularly in light of Plaintiff having proposed that phrase in the District of Delaware. *See id.* This will help make clear that an “array” is not merely a collection of information.

As to whether the construction should refer to an absence of a transmission signal “on the received channel,” the disputed term itself refers to an “idle channel,” which weighs against Defendants’ proposal of requiring total absence of *any* transmission signal on *any* channel. The

Background of the Invention section of the specification is consistent with this understanding, referring to a “channel,” “subchannels,” and also potential “disturbances from other data services”:

The exchange of diagnostic and test information between transceivers in a telecommunications environment is an important part of a telecommunications, such as an ADSL, deployment. In cases where the transceiver connection is not performing as expected, for example, where the data rate is low, where there are many bit errors, or the like, it is necessary to collect diagnostic and test information from the remote transceiver. This is performed by dispatching a technician to the remote site, e.g., a truck roll, which is time consuming and expensive.

In DSL technology, communications over a local subscriber loop between a central office and a subscriber premises is accomplished by modulating the data to be transmitted onto a multiplicity of discrete frequency carriers which are summed together and then transmitted over the subscriber loop. Individually, the carriers form discrete, non-overlapping communication *subchannels* of limited bandwidth. Collectively, the carriers form what is effectively a broadband communications *channel*. At the receiver end, the carriers are demodulated and the data recovered.

DSL systems experience *disturbances from other data services* on adjacent phone lines, such as, for example, ADSL, HDSL, ISDN, T1, or the like. These disturbances may commence after the subject ADSL service is already initiated and, since DSL for internet access is envisioned as an always-on service, the effect of these disturbances must be ameliorated by the subject ADSL transceiver.

’686 Patent at 1:24–49 (emphasis added); *see id.* at 2:4–5 (“the modem transmits data over a multiplicity of subchannels of limited bandwidth”).

The District of Delaware noted that the defendants’ proposal in that case “allows the interpretation that there is no transmission signal on channels adjacent to the channel being measured,” and the District of Delaware rejected the defendants’ proposal. *Delaware Family 1 CC Opinion* at 9. Defendants do not persuasively justify departing from this finding by the District of Delaware. In particular, Defendants do not persuasively support their assertion that “for a channel to be idle, as required by the claim, the transceiver must be ‘off.’” (Dkt. No. 135,

VI. DISPUTED TERMS IN THE “FAMILY 2” PATENTS

The '881 Patent, titled “Systems and Methods for Multi-Pair ATM Over DSL,” issued on November 18, 2008, and bears an earliest priority date of October 5, 2001. The Abstract of the '881 Patent states:

At a transmitter, an ATM cell stream is received from the ATM layer and is distributed on a cell-by-cell bases [*sic*] across multiple DSL PHY's. At the receiver, the cells from each DSL PHY are re-combined in the appropriate order to recreate the original ATM cell stream, which is then passed to the ATM layer.

The terms “utilize at least one transmission parameter value, for each transceiver in a plurality of bonded transceivers, to reduce a difference in latency between the bonded transceivers” and “utilize at least one parameter associated with operation of at least one of the first and second transceivers to reduce a difference in latency between the first and second transceivers” are identified in Defendants’ portion of the P.R. 4-3 Joint Claim Construction and Prehearing Statement but not in Plaintiff’s portion thereof. *Compare* Dkt. No. 107, Ex. B, at 8 with *id.*, Ex. A. Because Defendants’ response brief does not address these terms, the Court concludes that these terms are no longer in dispute, and the Court therefore does not further address these terms.

5. “plurality of bonded transceivers”

<p align="center">“plurality of bonded transceivers” ‘881 Patent, Claims 17</p>	
<p>Plaintiff’s Proposed Construction</p>	<p>CommScope’s Proposed Construction</p>
<p>“two or more transceivers located on the same side of two or more physical links where each transceiver is configurable to transmit or receive a different portion of the same bit stream via a different one of the physical links”</p>	<p>“two or more transceivers, located on the same side of two or more physical links and each corresponding to one of the physical links, coordinated to transmit or receive a different portion of the same bit stream via a different one of the physical links”</p>

(Dkt. No. 107, Ex. A, at 60; *id.*, Ex. B, at 5; Dkt. No. 146, App'x A, at 3; Dkt. No. 149, App'x A, at 38.)

(a) The Parties' Positions

Plaintiff argues that “the Patents teach that a ‘bonded transceiver’ is a device that, as a result of hardware and/or software, is configurable to perform bonding (just like a screwdriver is capable of driving a screw).” (Dkt. No. 124, at 8.) Plaintiff also argues that “TQ Delta’s proposed construction is the one that the Delaware Court arrived at.” (*Id.*) Further, Plaintiff argues that Defendants’ proposal “improperly injects a use limitation into a claim written in structural terms.” (*Id.* (citation and internal quotation marks omitted).)

CommScope responds that “[u]nlike TQ Delta’s proposed construction, CommScope’s proposed construction reflects the critical concept that the transceivers must actually do something, *i.e.*, be bonded to transmit different portions of the same bit stream.” (Dkt. No. 135, at 9 (citation omitted).) CommScope argues that “[t]he applicants could have chosen language such as a ‘plurality of transceivers capable of being bonded,’ but they did not,” and “TQ Delta should not now be permitted to rewrite the claim.” (*Id.*, at 8.)

Plaintiff replies that “Defendants do not provide a reason to depart from the Delaware Court’s holding that ‘the recited “plurality of bonded transceivers” need not be actively bonding.’” (Dkt. No. 140, at 4 (quoting *Delaware Family 2 CC Opinion* at 11).)

At the June 1, 2022 hearing, the parties submitted that the evidence here is the same as the evidence presented to the District of Delaware on this same disputed term in the same claim. CommScope argued that the District of Delaware erred because the claims do not recite a mere capability or configurability, and CommScope urged that the specification refers to bonding in terms of actual operation.

(b) Analysis

The District of Delaware found:

The specification’s disclosure that [the] system of the invention can be implemented by “physically incorporating” the elements of the claims “into a software and/or hardware system” does not suggest that actual operation of the system would be required to practice the system claims of the invention. In turn, the recited ‘plurality of bonded transceivers’ need not be actively bonding.

Delaware Family 2 CC Opinion at 11 (citing ’881 Patent at 11:31–34); *see id.* at 6–12.

Nonetheless, the District of Delaware also noted:

Under my construction, a transceiver cannot be a “bonded transceiver” unless it contains the hardware (in the required physical arrangement) and the software necessary for bonding, in such a form that a POSA would not have to rebuild or recode the hardware or software for the transceiver to perform the bonding function. A transceiver may be a “bonded transceiver” if the hardware and software components are present in such a way that a POSA would have to activate them (e.g., by turning the transceiver on) to accomplish the bonding function, but if a POSA would have to modify source code in a transceiver, for example, the transceiver would not qualify as a “bonded transceiver.”

Id. at 10 (citing ’881 Patent at 16:3–6 & 19:6–19).

Based on this analysis, the District of Delaware construed “plurality of bonded transceivers” to mean “two or more transceivers located on the same side of two or more physical links where each transceiver is configurable to transmit or receive a different portion of the same bit stream via a different one of the physical links, wherein ‘configurable to’ precludes rebuilding, recoding, or redesigning any of the components in a ‘plurality of bonded transceivers.’” *Id.* at 12.

Claim 17 of the ’881 Patent, for example, recites (emphasis added):

17. A *plurality of bonded transceivers*, each bonded transceiver utilizing at least one transmission parameter value to reduce a difference in latency between the bonded transceivers, wherein a data rate for a first of the bonded transceivers is different than a data rate for a second of the bonded transceivers.

As CommScope points out, the claim does not recite transceivers merely capable of being bonded but rather recites “bonded transceivers.” The other claims here at issue are similar in this regard. *See* ’881 Patent, Cls. 25, 33 & 37.

The specification, however, uses the term “bonded” in contrast with “traditional” PHYs (wherein “PHYs” refers to “twisted wire pairs,” *see* ’881 Patent at 1:60–61) and refers to implementing the system in software and/or hardware:

The exemplary systems and methods of this invention combine multiple DSL PHY's, i.e., multiple twisted wire pairs, to, for example, generate a high data rate connection for the transport of an ATM cell stream between the service provider and, for example, a DSL subscriber.

* * *

In the exemplary system illustrated in FIG. 2, two ADSL PHYs 160 and 170 are “bonded” together to transport a single ATM cell stream. However, it should be appreciated, that the number of ADSL PHYs “bonded” together can be easily expanded to any number ($N \geq 2$) of ADSL PHYs thereby, for example, enabling higher ATM data rates. In addition to the two ADSL PHYs 160 and 170 that are bonded together, it should further be appreciated that in some instances in the same access node 100, other ADSL PHYs may be operating in the traditional way. Obviously, the ADSL PHYs operating the traditional way do not need to be connected to the multi-pair multiplexer 140. Thus, in general, it should be appreciated that any combination of “bonded” and unbonded, i.e. traditional, ADSL PHY’s, may be configured between the access node 100 and the broadband network determination 200. Furthermore, it should be appreciated that all of the ADSL PHYs can be bonded together.

* * *

The ATM over DSL system can also be implemented by physically incorporating the system and method into a software and/or hardware system, such as the hardware and software systems of a communications transceiver.

'881 Patent at 1:60–64, 4:29–45 & 11:31–34.

This disclosed contrast between “bonded” PHYs and “PHYs operating the traditional way” uses the term “bonded” not to refer to action but rather to refer to a particular type of configuration. The District of Delaware also considered this disclosure, and although the court

found no requirement for “actively bonding” (*Delaware Family 2 CC Opinion* at 11), the court noted that “[t]he specification distinguishes ‘bonded’ ADSL PHYs from ‘unbonded, i.e. traditional’ ADSL PHYs based on whether they are actually connected to the multi-pair multiplexer, not whether they are ‘configurable’ to be in some sort of physical relationship with one another.” *Id.* at 8 (citing ’881 Patent at 4:34–45). The District of Delaware therefore included the phrase “located on the same side of two or more physical links” in the construction, and the court further clarified that “[t]his suggests that to be ‘bonded,’ the physical arrangement of a plurality of transceivers must meet certain physical configuration requirements.” *Id.*

CommScope’s proposed construction in the present case, however, would improperly “inject[] a use limitation into a claim written in structural terms.” *Paragon Solutions, LLC v. Timex Corp.*, 566 F.3d 1075, 1090 (Fed. Cir. 2009); *see id.* (“[A]pparatus claims cover what a device is, not what a device does.”) (quoting *Hewlett–Packard Co. v. Bausch & Lomb, Inc.*, 909 F.2d 1464, 1468 (Fed. Cir. 1990)). The *Typhoon Touch* case cited by Defendants does not compel requiring active bonding. *See Typhoon Touch Tech. Inc. v. Dell Inc.*, 659 F.3d 1376, 1380–81 (Fed. Cir. 2011) (finding no error where “[t]he district court, in reviewing the specification, held that the ‘memory for storing’ clause requires that the memory is *actually programmed or configured* to store the data collection application”) (emphasis added).

Having reviewed the evidence and arguments presented by the parties in the present case, the Court adopts the above-discussed construction entered by the District of Delaware. Although the phrase “located on the same side of two or more physical links” in that construction requires “physical arrangement” and “physical configuration” of transceivers with regard to one another (*Delaware Family 2 CC Opinion* at 8), the disputed term refers to configuration and does not require active use.

<p align="center">“reduce a difference in latency between the bonded transceivers” ‘881 Patent, Claims 17</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“reduce a difference in configuration latency”	Indefinite, or, if not indefinite, “minimize the difference in the configuration latencies between the bonded transceivers”

(a) The Parties' Positions

CommScope responds that “[t]he specification states that there can be a ‘latency difference,’ and it describes various types of latencies, but it never explains how to ‘reduce a

difference in latency’ as the claim requires.” (Dkt. No. 135, at 9–10.) As to disclosure in the specification regarding reducing a “configuration latency,” CommScope argues that “simply reducing the difference in *configuration latency* is not sufficient to reduce the overall difference in latency *of the system*.” (*Id.*, at 10–11.) “Alternatively,” CommScope argues, “if this claim term is not indefinite, the Court should adopt CommScope’s proposed construction because it is consistent with the specification.” (*Id.* at 11.)

Plaintiff replies: “[I]f utilizing the configuration parameters does not reduce a difference in overall latency between transceivers (*e.g.*, due to large hypothetical differences in wire latency), there would be no infringement under Defendants’ view of the term. That is not a definiteness issue—when the configuration parameters *did* reduce latency, the claims would be met.” (Dkt. No. 140, at 4.) Plaintiff also argues that the constituent term “reduce” does not require minimizing. (*Id.*, at 4–5.)

At the June 1, 2022 hearing, Plaintiff argued that referring to configuration latency is appropriate because, although total system latency includes wire latency, the speed of the signals is so high that any differences in wire latency are insignificant in real-world scenarios. Plaintiff also emphasized that the District of Delaware rejected a proposal to limit “reduce” to meaning “minimize.” Defendants responded that the difference in configuration latency needs to be minimized by being set to zero because that is the only interpretation supported by the disclosure in the specification. Defendants also argued that although the specification discusses configuration latency, the specification does not explain what “reduce a difference” means, what the latency was beforehand, or what the latency would have been otherwise.

(b) Analysis

Claim 17 of the ’881 Patent, for example, recites (emphasis added):

17. A plurality of bonded transceivers, each bonded transceiver utilizing at least one transmission parameter value to *reduce a difference in latency between the bonded transceivers*, wherein a data rate for a first of the bonded transceivers is different than a data rate for a second of the bonded transceivers.

The specification discloses:

Another effective method of *reducing the difference in latency* between DSL PHYs is mandate that all DSL PHYs are configured with transmission parameters in order to provide the same *configuration latency*. An exemplary method of accomplishing the same configuration latency is by configuring the exact same data rate, coding parameters, interleaving parameters, etc. on all DSL PHYs. Alternatively, different PHYs can have, for example, *different data rates* but use the appropriate coding or interleaving parameters to have the same latency on all the bonded PHYs.

'881 Patent at 6:56–65 (emphasis added).

In the District of Delaware, the parties presented the following proposed constructions for the term “utilizing at least one transmission parameter value to reduce a difference in latency between the bonded transceivers,” and the District of Delaware construed the term as follows:

<u>Pl.’s Proposal in Delaware</u> <u>(emphasis added)</u>	<u>Delaware Defs.’ Proposal</u> <u>(emphasis added)</u>	<u>Delaware Construction</u> <u>(emphasis added)</u>
“to set a value of at least one parameter used for transmission to <i>reduce the difference between the latencies</i> of the respective bonded transceivers”	“configuring at least one transmission parameter value to <i>minimize the difference in the configuration latencies</i> between the bonded transceivers”	“utilizing at least one transmission parameter value to <i>reduce a difference in configuration latency</i> between the bonded transceivers”

Delaware Family 2 CC Opinion at 16. The District of Delaware thus adopted the defendants’ proposal of referring to “configuration” latency. As to the defendants’ proposal of “minimize,” which Defendants in the present case also propose, the District of Delaware found that “minimize” would be an “unduly narrow limitation” that would improperly limit the claim to a preferred embodiment. *Id.* at 17.

In subsequent proceedings, the District of Delaware rejected an indefiniteness challenge as to this term, finding that the defendants’ arguments appeared to be based on the legal standards for written description or enablement rather than indefiniteness. *Delaware Family 2 SJ Opinion*, 373 F. Supp. 3d at 523–524. The District of Delaware also noted that the defendants’ expert opined that ““there is no way to establish a reference point to determine that a difference in latency has been reduced”” and that “there is no embodiment demonstrating how to reduce rather than how to eliminate the difference in configuration latency.” *Id.* (citations omitted). The District of Delaware found that “[t]he asserted claims are clear on their face as to what is claimed,” and “[t]his is not an issue of whether a person of ordinary skill in the art would understand the claim scope, but an issue of whether that claim is properly supported by written description or enabled by the patent specification.” *Id.* at 524.

Also of note, the specification discloses “configuration latency . . . is based on the configuration of the DSL transmission parameters . . .” which include “the data rate, coding parameters, such as the coding method, codeword size, interleaving parameters, framing parameters, or the like.” ’881 Patent at 6:10–15; *see id.* at 6:66–7:34; *see also id.* at 5:7–11 (“The configuration of the multi-pair multiplexing transmitter 300 can be varied to, for example, provide an equal or unequal data rate on the DSL PHYs.”); *id.* at 10:40–47 (“a determination is made whether there is a difference in latency between the DSL lines”).

These disclosures provide context for understanding “latency” as used in the ’881 Patent. In light of these disclosures in the specification, as well as considering the above-discussed claim construction and indefiniteness analysis of the District of Delaware, the indefiniteness opinions of Defendants’ expert in the present case are unpersuasive. (*See* Dkt. No. 135, Ex. 24, Mar. 14, 2022 Zimmerman Decl., at ¶¶ 61–62.)

The Court adopts the reference to “configuration latency” that was agreed upon and adopted in the District of Delaware. *See Delaware Family 2 CC Opinion* at 16 (“During oral argument, the parties agreed to the Court’s proposed construction of this term, except as to how the decrease in configuration latency should be construed.”) (footnote omitted). Defendants in the present case point to disclosure in the specification that refers to “end-to-end delay (latency)” as including “configuration latency” as well as “ATM-TC latency,” “wire latency” and “design latency.” *See* ’881 Patent at 6:1–31. These other types of latency, however, do not appear to be relevant to the recital of “reduce a difference in latency between the bonded transceivers.” These latencies are disclosed as follows (with reference to “twisted wire pairs,” which are referred to as “PHYs” in DSL systems, *see id.* at 1:60–61):

Th[e] potential latency difference between bonded PHYs places implementation requirements on the multi-pair multiplexer. In particular, the multi-pair multiplexer receiver must be able to reconstruct the ATM stream even if the ATM cells are not being received in the same order as they where [*sic*, were] transmitted.

For example, some of the exemplary reasons for having different delays over different DSL PHYs include, but are not limited to, configuration latency which is based on the configuration of the DSL transmission parameters. Specifically, these parameters include the data rate, coding parameters, such as the coding method, codeword size, interleaving parameters, framing parameters, or the like.

ATM-TC latency is based on cell rate decoupling in the ATM-TC. Specifically, the ATM-TC block in ADSL transceivers performs cell rate decoupling by inserting idle cells according to the ITU Standard I.432, incorporated herein by reference in its entirety. This means that depending on the ATU timing and the state of the ATU buffers, an ATM cell that is sent over a DSL PHY will experience non-constant end-to-end delay (latency) through the PHY.

Wire latency is based on differences in the twisted wire pairs. Specifically, the DSL electrical signals can experience different delays based on the difference in length of the wire, the gauge of the wire, the number [of] bridged taps, or the like.

Design latency is based on differences in the DSL PHY design. Specifically, the latency of the PHY can also depend on the design chosen by the manufacture.

Thus, as result of the different latencies in the PHYs, it is possible that an ATM cell that was sent over a DSL PHY may be received at the multi-pair multiplexing receiver after an ATM cell that was sent out later on a different DSL PHY.

Id. at 6:4–35.

This disclosure supports interpreting the disputed term as referring to configuration latency because what is relevant in the context of the present disputed term is that parameters can be configured. “Wire latency” and “design latency,” by contrast, are disclosed as resulting from physical properties of the twisted wire pairs themselves, which are separate from the claimed transceivers. Because the disputed term relates to controlling a difference in latency between the transceivers, a person of ordinary skill in the art would understand that what is being controlled is the configuration of the transceivers, not the physical properties of the physical links. Also, no party has shown that the disclosure of “ATM-TC latency” affects this analysis.

As to Defendants’ argument that “a difference in latency” is unclear because the actual latencies cannot be known until the transceivers are in operation, the above-cited disclosures reinforce that the claims can be understood without comparing actual latency values or actual data rates, instead requiring reducing “a difference in latency” (such that the difference is less than it would have otherwise been). Also, the claim in which this term appears requires “bonded transceivers,” which the Court’s construction (above) requires to be “located on the same side of two or more physical links.” This requirement of physical links, as part of the claim limitations, provides additional context for a person of ordinary skill in the art to understand reducing a difference in latency between the bonded transceivers.

Further, as to the opinion of Defendants’ expert that “it is possible to *increase* the difference in overall latency between two links by *reducing* the difference in configuration latency” (*see* Dkt. No. 135, Ex. 24, Mar. 14, 2022 Zimmerman Decl., at ¶ 61), Defendants’

The Court therefore hereby construes “**reduce a difference in latency between the bonded transceivers**” to mean “**reduce a difference in configuration latency between the bonded transceivers.**”

7. “each bonded transceiver [utilizing/selecting] at least one transmission parameter value to reduce a difference in latency between the bonded transceivers” and “[utilize/select] at least one transmission parameter value, for each transceiver in a plurality of bonded transceivers, to reduce a difference in latency between the bonded transceivers”

<p>“each bonded transceiver [utilizing/selecting] at least one transmission parameter value to reduce a difference in latency between the bonded transceivers” ‘881 Patent, Claims 17, 25</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
(None apart from proposal for the constituent term “reduce a difference in latency between the bonded transceivers”)	Indefinite, or, if not indefinite, “each bonded transceiver configured with at least one transmission parameter value to minimize the difference in the configuration latencies between the bonded transceivers”
<p>“[utilize/select] at least one transmission parameter value, for each transceiver in a plurality of bonded transceivers, to reduce a difference in latency between the bonded transceivers” ‘881 Patent, Claims 33, 37</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
(None apart from proposal for the constituent term “reduce a difference in latency between the bonded transceivers”)	Indefinite, or, if not indefinite, “configure at least one transmission parameter value of each bonded transceiver to minimize the difference in the configuration latencies between the bonded transceivers”

(Dkt. No. 107, Ex. A, at 61; *id.*, Ex. B, at 7–8; *see* Dkt. No. 146, App’x A, at 5; Dkt. No. 149, App’x A, at 39.)

Plaintiff argues these terms together with its arguments as to the constituent term “reduce a difference in latency between the bonded transceivers.” (*See* Dkt. No. 124, at 10 n.7.) Defendants present no separate argument as to these terms. (*See* Dkt. No. 135.) At the June 1, 2022 hearing, the parties agreed that these terms present the same issues as discussed above regarding the term “reduce a difference in latency between the bonded transceivers.”

Also, the term “[utilize/select] at least one transmission parameter value, for each transceiver in a plurality of bonded transceivers, to reduce a difference in latency between the bonded transceivers” in Claims 33 and 37 of the ’881 Patent does not appear in the parties’ P.R. 4-5(d) Joint Claim Construction Chart (*see* Dkt. No. 149, App’x A), so evidently Plaintiff no longer asserts the claims in which that term appears. The Court therefore does not further address that term.

The Court therefore hereby construes **“each bonded transceiver [utilizing/selecting] at least one transmission parameter value to reduce a difference in latency between the bonded transceivers”** to have its **plain meaning** (apart from the Court’s construction of the constituent term “reduce a difference in latency between the bonded transceivers,” above).

VII. DISPUTED TERMS IN THE “FAMILY 3” PATENTS

Plaintiff submits that “[t]he Family 3 and 9 Patents generally relate to sharing resources, such as sharing memory between an interleaver and deinterleaver or a transmission function and a retransmission function.” (Dkt. No. 124, at 1 (citation omitted).)

The ’882 Patent, for example, titled “Resource Sharing in a Telecommunications Environment,” issued on November 30, 2010, and bears an earliest priority date of October 12, 2004. The Abstract of the ’882 Patent states:

A transceiver is designed to share memory and processing power amongst a plurality of transmitter and/or receiver latency paths, in a communications transceiver that carries or supports multiple applications. For example, the transmitter and/or receiver latency paths of the transceiver can share an interleaver/deinterleaver memory. This allocation can be done based on the data rate, latency, BER, impulse noise protection requirements of the application, data or information being transported over each latency path, or in general any parameter associated with the communications system.

8. “shared memory,” “sharing the memory,” and “operable to be shared / sharing”

<p style="text-align: center;">“shared memory” ’882 Patent, Claims 9, 13; ’048 Patent, Claims 1, 5; ’510 Patent, Claims 21, 22</p> <p style="text-align: center;">“sharing the memory” ’5473 Patent, Claim 10</p> <p style="text-align: center;">“operable to be shared / sharing” ’608 Patent, Claim 2</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>“shared memory”: “common memory used by at least two functions, where a portion of the memory can be used by either one of the functions”</p>	<p>Plain and ordinary meaning</p>

(Dkt. No. 107, Ex. A, at 65; *id.*, Ex. B, at 9; Dkt. No. 146, App’x A, at 5; Dkt. No. 149, App’x A, at 39–40.)

(a) The Parties’ Positions

Plaintiff submits that “TQ Delta’s proposal matches how the Delaware Court construed this term.” (Dkt. No. 124, at 12 (citations omitted).) Plaintiff further submits that the construction by the District of Delaware “aligns with the record” and “[a] Delaware jury rendered a verdict under that construction, and this construction will help the jury here understand this term.” (*Id.*) Plaintiff also argues that “[t]he claims recite ‘allocating’ (or a related word) the shared memory between an interleaver and deinterleaver, which reflects that each allocated portion can be used by either the interleaver or deinterleaver—but not both.” (*Id.*, at 13.) Plaintiff urges: “Defendants’ plain-and-ordinary meaning construction ignores the context of the intrinsic record—and asserts that any type of memory that could be used by more

Plaintiff replies by reiterating that the District of Delaware was correct and that “[t]he plain meaning of a ‘shared’ resource is that it can be used by multiple things (*e.g.*, a car shared between two people is one that both people can access and drive).” (Dkt. No. 140, at 5.)

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(b) Analysis

As a threshold matter, the parties have discussed whether certain prior art reference examples of memory can qualify as “shared memory,” such as what the parties have referred to as “interprocessor” memory or, as another example, a type of memory known as “ping pang” or “ping pong” memory. These issues pertain to specific invalidity arguments that perhaps may be affected by the Court’s claim construction, but the applicability of those prior art references is not presently before the Court. *See Phillips*, 415 F.3d at 1327 (“we have certainly not endorsed a regime in which validity analysis is a regular component of claim construction”) (citation omitted).

Turning to the claim language, Claim 9 of the ’882 Patent, for example, recites (emphasis added; formatting modified):

9. A system that allocates *shared memory* comprising:
 - a transceiver that performs:
 - transmitting or receiving a message during initialization specifying a maximum number of bytes of memory that are available to be allocated to an interleaver;
 - determining an amount of memory required by the interleaver to interleave a first plurality of Reed Solomon (RS) coded data bytes within a *shared memory*;
 - allocating a first number of bytes of the *shared memory* to the interleaver to interleave the first plurality of Reed Solomon (RS) coded data bytes for transmission at a first data rate, wherein the allocated memory for the interleaver does not exceed the maximum number of bytes specified in the message;
 - allocating a second number of bytes of the *shared memory* to a deinterleaver to deinterleave a second plurality of RS coded data bytes received at a second data rate; and
 - interleaving the first plurality of RS coded data bytes within the *shared memory* allocated to the interleaver and deinterleaving the second plurality of RS coded data bytes within the *shared memory* allocated to the deinterleaver, wherein the *shared memory* allocated to

the interleaver is used at the same time as the *shared memory* allocated to the deinterleaver.

The specification uses the term “share” to refer to a resource being used by multiple “paths.” *See, e.g.*, ’882 Patent at Abstract (“A transceiver is designed to share memory and processing power amongst a plurality of transmitter and/or receiver latency paths, in a communications transceiver that carries or supports multiple applications.”) & 4:59–62 (“The shared memory 120 is shared amongst the two transmitter portion interleavers 216 and 226 and two receiver portion deinterleavers 316 and 326.”).

The District of Delaware construed “shared memory” to mean “common memory used by at least two functions, where a portion of the memory can be used by either one of the functions.” *Delaware Family 3 CC Opinion* at 5. In that case, the “[d]efendants d[id] not contest that for these patents, at any one time, a certain part of the memory can be used by one function or the other, but not both.” *Delaware Family 3 CC Opinion* at 6; *see id.* at 5–7; *see also Delaware Family 9 CC Opinion* at 15 (“Defendants do not contest that for these patents, at any one time, a certain part of the memory can be used by one function or the other, but not both.”).

The specification is consistent with finding that a particular portion of a shared memory can be used by only one function at a time:

[A]n exemplary transceiver can comprise a shared interleaver/deinterleaver memory, such as shared memory 120, and be designed to allocate a first portion of shared memory 120 to a first interleaver, e.g., 216, in the transmitter portion of the transceiver and allocate a second portion of the shared memory to a second interleaver, e.g., 226, in the transmitter portion of the transceiver.

'882 Patent at 5:40–46.

Defendants submit the opinions of their expert that “[w]hether to use the *same location* of memory for multiple functions is a choice that a person of ordinary skill in the art makes about

how to use a shared memory rather than a defining characteristic of a shared memory.” (Dkt. No. 135, Ex. 25, Mar. 14, 2022 Wesel Decl., at ¶ 45.) Defendants’ expert also opines:

With random access memories (RAMs), for example, the location where bytes or words of memory are written or read is provided to an address register, and functions are often allocated memory space by assigning to the function a range of addresses. In these circumstances, it might be that multiple functions share the RAM but input addresses into the register and [sic] are assigned so that the functions use the memory space without ever using the same portion of memory even though the functionality of the RAM makes it possible and easy for multiple functions to use the same portion of memory. In cases like this, it would be unclear whether, under Plaintiff’s construction that requires that “a portion of the memory can be used by either one of the functions,” such a memory would meet those requirements.

(*Id.* at ¶ 43; *see id.* at ¶¶ 42–45.)

In reply, Plaintiff urges that Defendants are attempting to read “shared” out of the term “shared memory” by suggesting that different functions could use different memory spaces, thus never using the same portion of the purportedly “shared” memory. (Dkt. No. 140, at 5.) Plaintiff thus appears to argue that, for the “shared memory” limitation to be met, the same *portion* of memory *must* be used by the multiple functions (just not at the same time). (*See id.*)

This apparent position (*id.*) lacks support in the intrinsic evidence and indeed is inconsistent with the claim language reciting “allocating” particular bytes of memory for particular functions *without* reciting *reallocating* the same bytes of memory for different functions. At the June 1, 2022 hearing, Plaintiff clarified that memory can be “shared” without a particular memory space necessarily being used by more than one function over time, so long as the system is configured such that the units of memory within the “shared memory” are each accessible by multiple functions and the relevant source code allows for allocating a unit of memory to different functions over time. The Court agrees, thus finding that “shared memory” does *not* require that the same units of memory must be used by more than one function over

time but *does* require that the system is configured such that each unit of memory can be allocated to different functions over time.

With that understanding, the Court hereby construes these disputed terms as set forth in the following chart:

<u>Term</u>	<u>Construction</u>
“shared memory” “a memory wherein the memory is operable to be shared”	“common memory used by at least two functions, where a portion of the memory can be used by either one of the functions”
“sharing the memory”	“using a common memory used by at least two functions, where a portion of the memory can be used by either one of the functions”

9. **“wherein the generated message indicates how the memory has been allocated between the interleaving function and the deinterleaving function”**

10. **“a message indicating how the shared memory is to be used by the interleaver or deinterleaver”**

“wherein the generated message indicates how the memory has been allocated between the interleaving function and the deinterleaving function” ‘5473 Patent, Claim 28	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning. No construction necessary.	Plain and ordinary meaning, i.e., “the message indicates the amount of memory that has been allocated to the [first deinterleaving / interleaving] function and the amount of memory that has been allocated to the [second] deinterleaving function”

<p align="center">“a message indicating how the shared memory is to be used by the interleaver or deinterleaver” ‘5473 Patent, Claim 10</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning. No construction necessary.	Plain and ordinary meaning, i.e., “the message indicates the amount of memory that is to be used by the interleaving function and the amount of memory that is to be used by the deinterleaving function”

(Dkt. No. 107, Ex. A, at 72; *id.*, Ex. B, at 10; Dkt. No. 146, App’x A, at 6; Dkt. No. 149, App’x A, at 46.)¹

(a) The Parties’ Positions

Plaintiff submits: “It is true that the Delaware Court, adopting TQ Delta’s proposal, construed one of these terms in the manner Defendants propose here. But the parties in Delaware were addressing a different dispute,” and “[t]here was no discussion of the difference, if any, between TQ Delta’s proposed construction and the plain meaning of this term.” (Dkt. No. 124, at 15 (citation omitted).) “TQ Delta’s concern is that Defendants, through the ‘amount of memory’ language, may resurrect the rejected ‘number of bytes’ argument before the jury.” (*Id.*)

Defendants respond that “[a]s TQ Delta admits, in the Delaware litigation, TQ Delta proposed the construction now put forth by Defendants in this case,” and “TQ Delta does not

¹ Defendants’ proposal for these respective terms has been inferred from their amalgamated proposal as to both terms. (See Dkt. No. 107, Ex. B, at 10 (“Plain and ordinary meaning, i.e., ‘the message indicates the amount of memory [that has been allocated to / is to be used by] the [first deinterleaving / interleaving] function and the amount of memory [that has been allocated to / is to be used by] the [second] deinterleaving function.”)); *see also* Dkt. No. 149, App’x A, at 46–47 (same).)

(b) Analysis

28. An apparatus comprising:

wherein at least a portion of the memory may be allocated to the interleaving function or the deinterleaving function at any one particular time and *wherein the generated message indicates how the memory has been allocated between the interleaving function and the deinterleaving function.*

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At the June 1, 2022 hearing, Plaintiff argued that its main dispute in the District of Delaware related to the phrase “amount of memory” (which was presented as a disputed term in that case but which does not appear in the claims here at issue). Plaintiff argued that this is why Plaintiff included “amount of memory” in its proposal for the “message” term in that case. Plaintiff’s arguments are unpersuasive because the recital of “allocated” connotes an amount, and, again, the Court need resolve any issue of whether Plaintiff is estopped from proposing a different construction. Plaintiff also argued at the June 1, 2022 hearing that memory allocation could be specified as a fraction, a percentage, or as some indication in relation to speed, but Plaintiff did not raise this issue in its briefing and, at least upon the present record, these hypotheticals appear to relate to implementation details that would potentially raise factual issues regarding infringement rather than any legal question for claim construction. *See PPG*, 156 F.3d

at 1355; *see also Acumed*, 483 F.3d at 806 (citing *PPG*); *Eon*, 815 F.3d at 1318–19 (citing *PPG*; citing *Acumed*).

As to the different term “a message indicating how the shared memory is to be used by the interleaver or deinterleaver” in Claim 10 of the ’5473 Patent, however, this term does not use the word “allocated.” At the June 1, 2022 hearing, Defendants argued that the word “used” is used in the specification in the same way as “allocated,” both of which, Defendants argue, refer to an *amount* of memory. On balance, Defendants do not persuasively justify limiting the constituent phrase “how the shared memory is to be used” to indicating amounts of memory for the interleaver and deinterleaver. The opinions of Defendants’ expert do not compel the narrowing proposed by Defendants. (*See* Dkt. No. 135, Ex. 25, Mar. 14, 2022 Wesel Decl., at ¶¶ 47–49.) The Court therefore hereby expressly rejects Defendants’ proposed construction for the term “a message indicating how the shared memory is to be used by the interleaver or deinterleaver.” No further construction of that term is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291; *Bayer*, 989 F.3d at 977–79.

The Court therefore hereby construes these disputed terms as set forth in the following chart:

<u>Term</u>	<u>Construction</u>
“wherein the generated message indicates how the memory has been allocated between the interleaving function and the deinterleaving function”	“wherein the generated message indicates the amount of memory that has been allocated to the interleaving function and the amount of memory allocated to the deinterleaving function”
“a message indicating how the shared memory is to be used by the interleaver or deinterleaver”	Plain meaning

11. “specifying a maximum number of bytes of memory that are available to be allocated to [a/an interleaver/deinterleaver]”

<p>“specifying a maximum number of bytes of memory that are available to be allocated to [a/an interleaver/deinterleaver]” ‘882 Patent, Claims 9, 13 ‘048 Patent, Claims 1, 5</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning. No construction necessary.	Plain and ordinary meaning, where the message must specify a maximum number of bytes.

(Dkt. No. 107, Ex. A, at 72; *id.*, Ex. B, at 10; Dkt. No. 135, at 2; *see* Dkt. No. 146, App’x A, at 6; *see also* Dkt. No. 149, App’x A, at 48.)

(a) Analysis

Plaintiff asserts: “The parties agree ‘specifying a maximum number of bytes of memory that are available to be allocated to [a/an interleaver/deinterleaver]’ in claims 9 and 13 of the ‘882 Patent and claims 1 and 5 should be construed as plain-and-ordinary meaning. Dkt. 107-1, at 73 (‘Plain and ordinary meaning. No construction necessary.’); Dkt. 107-2, at 10 (‘Plain and ordinary meaning’).” (Dkt. No. 124, at 2.)

Defendants respond that “while TQ Delta’s brief is unclear, TQ Delta’s Infringement Contentions indicate that TQ Delta takes a broader position that reads out the requirement—stated directly in the claim term itself—that the message specify the *maximum number of bytes*.” (Dkt. No. 135, at 1 (citing ‘882 Patent at 8:60–9:4).) Defendants propose construing this disputed term as: “plain and ordinary meaning, where the message must specify a maximum number of bytes.” (*Id.*, at 2.)

Plaintiff replies: “Defendants’ late attempt to construe this term should be rejected. They did not raise any construction in the P.R. 4-3 statement and thus waived the issue. Dkt. 107-2, at 10 (‘Plain and ordinary meaning’). Defendants now raise an (incorrect) improper infringe[ment] argument.” (Dkt. No. 140, at 6.)

(b) Analysis

Claim 9 of the ’882 Patent, for example, recites (emphasis added; formatting modified):

9. A system that allocates shared memory comprising:
 - a transceiver that performs:
 - transmitting or receiving a message during initialization *specifying a maximum number of bytes of memory that are available to be allocated to an interleaver*;
 - determining an amount of memory required by the interleaver to interleave a first plurality of Reed Solomon (RS) coded data bytes within a shared memory;
 - allocating a first number of bytes of the shared memory to the interleaver to interleave the first plurality of Reed Solomon (RS) coded data bytes for transmission at a first data rate, wherein the allocated memory for the interleaver does not exceed the maximum number of bytes specified in the message;
 - allocating a second number of bytes of the shared memory to a deinterleaver to deinterleave a second plurality of RS coded data bytes received at a second data rate; and
 - interleaving the first plurality of RS coded data bytes within the shared memory allocated to the interleaver and deinterleaving the second plurality of RS coded data bytes within the shared memory allocated to the deinterleaver, wherein the shared memory allocated to the interleaver is used at the same time as the shared memory allocated to the deinterleaver.

Defendants’ proposal of “where the message must specify a maximum number of bytes” simply repeats the language of this claim limitation itself, which already recites (emphasis added): “transmitting or receiving *a message* during initialization *specifying a maximum number of bytes* of memory that are available to be allocated to an interleaver.” That is, the claim already

recites that the “message” specifies the maximum number of bytes. The other claims here at issue are the same in this regard. *See* ’882 Patent, Cl. 13; *see also* ’048 Patent, Cls. 1 & 5. At the June 1, 2022 hearing, Plaintiff agreed that the “message” specifies the maximum number of bytes. The Court therefore hereby expressly rejects Defendants’ proposed construction as redundant and as tending to confuse rather than clarify the scope of the claims.

Instead, at least at this stage, Defendants’ argument regarding Plaintiff’s infringement contentions relates to the sufficiency of Plaintiff’s proof on infringement rather than any legal question for claim construction. *See PPG*, 156 F.3d at 1355; *see also Acumed*, 483 F.3d at 806 (citing *PPG*); *Eon*, 815 F.3d at 1318–19 (citing *PPG*; citing *Acumed*). As the Court stated at the June 1, 2022 hearing, the Court fully expects the parties to raise *no later than at the summary judgment stage* any underlying claim construction issue regarding this term that arises because of the particular infringement issues presented in this case.

On that basis, the Court hereby construes **“specifying a maximum number of bytes of memory that are available to be allocated to [a/an interleaver/deinterleaver]”** to have its **plain meaning**.

VIII. DISPUTED TERMS IN THE “FAMILY 4” PATENTS

Plaintiff submits that “[t]he Family 4 Patents generally relate to techniques to reduce the peak-to-average-ratio[] (‘PAR’) of a carrier signal by scrambling the phase characteristics of the carrier signals.” (Dkt. No. 124, at 1 (citation omitted).)

The ’008 Patent, titled “System and Method for Scrambling the Phase of the Carriers in a Multicarrier Communications System,” issued on January 3, 2012, and bears an earliest priority date of November 9, 1999. The Abstract of the ’008 Patent states:

A system and method that scrambles the phase characteristic of a carrier signal are described. The scrambling of the phase characteristic of each carrier signal

<p align="center">“phase characteristic(s)” “each carrier signal has a phase characteristic associated with the bit stream” ’008 Patent, Claim 14</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“one or more values that represent the angular aspect of a carrier signal”	Plain and ordinary meaning

(a) The Parties' Positions

Defendants respond: “[R]ather than provide clarity, TQ Delta’s construction simply risks confusing the jury, requiring explanation of QAM symbol constellation points and ‘angular aspects of a carrier signal.’ Also, TQ Delta’s proposal is overly restrictive. Many ‘phase

characteristics’ may exist for a carrier signal, but TQ Delta’s construction limits those characteristics to values that ‘represent the angular aspect’ of that carrier signal.” (Dkt. No. 135, at 15 (citations omitted).)

Plaintiff replies that “QAM encoding will need to be explained to the jury as background of the technology anyway,” and “[t]he fact that there may be ‘infinite’ ways to express phase characteristics says nothing about whether TQ Delta’s proposed construction is overly restrictive.” (Dkt. No. 140, at 6.)

At the June 1, 2022 hearing, Plaintiff argued that Defendants are opposing Plaintiff’s proposed construction because Defendants hope that the jury will be looking for numbers of degrees or radians rather than the digital representations that computers actually use to describe phase characteristics, such as what Plaintiff referred to as an “(X,Y) pair” or an “(I,Q) pair.” As to the construction by the District of Delaware, Plaintiff argued that the phrase “a constellation point” would be confusing and so Plaintiff proposes instead referring to “a carrier signal.” Defendants responded that this disputed term should be given its plain meaning in the present case because the construction by the District of Delaware was directed to a specific dispute regarding QAM modulation that is not at issue in the present case.

(b) Analysis

Defendants object in their portion of the P.R. 4-3 Joint Claim Construction and Prehearing Statement that Plaintiff’s proposed construction is untimely because Plaintiff did not include this term in Plaintiff’s P.R. 4-1 disclosures. (Dkt. No. 107, Ex. B, at 12 n.3.) Defendants have not included this objection in their Responsive Claim Construction Brief (*see* Dkt. No. 135), so Defendants evidently no longer assert this objection.

Claim 14 of the ’008 Patent recites (emphasis added):

14. A multicarrier system including a first transceiver that uses a plurality of carrier signals for modulating a bit stream, wherein each carrier signal has a *phase characteristic* associated with the bit stream, the transceiver capable of:

associating each carrier signal with a value determined independently of any bit value of the bit stream carried by that respective carrier signal, the value associated with each carrier signal determined using a pseudo-random number generator;

computing a phase shift for each carrier signal based on the value associated with that carrier signal; and

combining the phase shift computed for each respective carrier signal with the *phase characteristic* of that carrier signal to substantially scramble the *phase characteristics* of the plurality of carrier signals, wherein multiple carrier signals corresponding to the scrambled carrier signals are used by the first transceiver to modulate the same bit value.

The District of Delaware construed “phase characteristics” to mean “one or more values that represent the angular aspect of a constellation point.” *See TQ Delta, LLC v. ADTRAN, Inc.*, No. 1:14-CV-00954-RGA, Dkt. No. 1377 (D. Del. Mar. 1, 2022).

The parties appear to agree that the word “phase,” in the context of signal characteristics, is a well-established term of art, and Plaintiff submits its expert’s understanding of “constellation points” in this context. (*See, e.g.*, Dkt. No. 124, Ex. 11, Mar. 2022 Madisetti Decl. at ¶¶ 26, 27, 34–36 & 69.) Defendants cite statements by Plaintiff’s counsel during a claim construction hearing in the District of Delaware that “there are numerous ways that one skilled in the art would understand that a phase characteristic can be expressed” and that there could be “infinite” phase characteristics. (*See* Dkt. No. 135, Ex. 34, Mar. 18, 2021 Hr’g Tr. at 19 & 25.) Defendants have not identified any contradiction between those cited statements and the construction proposed by Plaintiff in the present case. For example, Plaintiff’s statements regarding “infinite” phase characteristics, when read in context, can be understood as stating that a particular phase characteristic may have an infinite number of possible values. (*See id.* at 19.)

Nonetheless, Plaintiff does not persuasively support its proposal of modifying the District of Delaware construction so as to refer to an “angular aspect of a carrier signal” rather than an

“angular aspect of a constellation point.” At the June 1, 2022 hearing, Plaintiff attempted to explain its divergence from the construction of the District of Delaware, but the transcript of the proceeding in the District of Delaware reflects that the court relied upon Plaintiff’s acceptance of the phrase “constellation point” in that case and found that “constellation point” more precisely tethered the construction to modulation than did Plaintiff’s proposal of “carrier signal.” *See TQ Delta, LLC v. ADTRAN, Inc.*, No. 1:14-CV-00954-RGA, Dkt. No. 1388, Mar. 1, 2022 Tr. at 119:1–8 (discussing Plaintiff’s expert’s proposal of “one or more values that represent the angular aspect of the carrier signal”); *see also id.* at 141:17–23. That transcript also reflects a general impression that the District of Delaware “do[es]n’t really think that there’s much of a dispute between [the experts, and] I think the disputes here more go to, I assume, infringement, possibly invalidity, and they are a matter for a different kind of hearing than claim construction.” *Id.* at 143:9–13. Finally, the declaration of Plaintiff’s expert in the present case reflects an understanding of “constellation points” in the relevant context. (*See, e.g.*, Dkt. No. 124, Ex. 11, Mar. 2022 Madisetti Decl. at ¶¶ 34–36.)

Based on all of the foregoing, the Court hereby construes “**phase characteristic(s)**” to mean “**one or more values that represent the angular aspect of a constellation point.**”

13. “substantially scramble the phase characteristics of the plurality of carrier signals”

<p>“substantially scramble the phase characteristics of the plurality of carrier signals” ’008 Patent, Claim 14</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“adjust the phase characteristics of the carrier signals by varying amounts to produce a transmission signal with a reduced peak[-]to-average power ratio (PAR)”	Plain and ordinary meaning

(Dkt. No. 107, Ex. A, at 80; *id.*, Ex. B, at 11; Dkt. No. 146, App’x A, at 7; Dkt. No. 149, App’x A, at 54.)

(a) The Parties’ Positions

Plaintiff argues that “TQ Delt[a] proposes the construction of this term adopted by the Delaware Court,” and “Defendants have not raised a substantive dispute with that construction.” (Dkt. No. 124, at 17.) Plaintiff also cites disclosures in the specification for support. (*Id.*)

Defendants respond that “TQ Delta’s construction should be rejected in favor of the plain and ordinary meaning,” and “[i]t is well established that importing functional language from the specification into a term’s construction is inappropriate.” (Dkt. No. 135, at 16 (citations omitted).)

Plaintiff replies that “[c]laiming a functional result is not per se improper,” and “TQ Delta’s proposed construction simply defines what that claimed result—‘to substantially scramble’—means.” (Dkt. No. 140, at 7.)

(b) Analysis

Claim 14 of the ’008 Patent recites (emphasis added):

14. A multicarrier system including a first transceiver that uses a plurality of carrier signals for modulating a bit stream, wherein each carrier signal has a phase characteristic associated with the bit stream, the transceiver capable of:

- associating each carrier signal with a value determined independently of any bit value of the bit stream carried by that respective carrier signal, the value associated with each carrier signal determined using a pseudo-random number generator;
- computing a phase shift for each carrier signal based on the value associated with that carrier signal; and
- combining the phase shift computed for each respective carrier signal with the phase characteristic of that carrier signal to *substantially scramble the phase characteristics of the plurality of carrier signals*, wherein multiple carrier signals corresponding to the scrambled carrier signals are used by the first transceiver to modulate the same bit value.

Defendants argue that the Delaware construction improperly imported functional language from the specification, and that “TQ Delta provides no argument regarding disclaimer, disavowal, or lexicography to support its construction.” (Dkt. No. 135, at 16.) Defendants cite,

At the June 1, 2022 hearing, Defendants cited a dependent claim of the ancestor '627 Patent that recites “modulating bits of the input bit stream onto the carrier signals having the substantially scrambled phase characteristics to produce a transmission signal with a reduced peak-to-average power ratio (PAR).” '627 Patent, Cl. 2. Defendants’ argument is, or is akin to, a claim differentiation argument, but the doctrine of claim differentiation is “a guide, not a rigid

rule.” *Wi-LAN USA, Inc. v. Apple Inc.*, 830 F.3d 1374, 1391 (Fed. Cir. 2016) (citation and internal quotation marks omitted); see *Multilayer Stretch Cling Film Holdings, Inc. v. Berry Plastics Corp.*, 831 F.3d 1350, 1360 (Fed. Cir. 2016) (“The dependent claim tail cannot wag the independent claim dog.”); see also *N. Am. Vaccine, Inc. v. Am. Cyanamid Co.*, 7 F.3d 1571, 1577 (Fed. Cir. 1993) (same).

Also, whereas dependent Claim 2 of the ’627 Patent *adds* a limitation of “modulating bits of the input stream onto the carrier signals,” the claim here at issue (Claim 14 of the ’008 Patent, reproduced above) already recites that the scrambled carrier signals are used to modulate. The absence of a modulating step in independent Claim 1 of the ’627 Patent perhaps explains why a reference to peak-to-average power ratio is added in a dependent claim (together with a step of modulating). Thus, whereas a modulation requirement accompanies the disputed language in dependent Claim 2 of the ’627 Patent, a modulation requirement is already present in Claim 14 of the ’008 Patent. Dependent Claim 2 of the ’627 Patent therefore does *not* weigh against construing Claim 14 with reference to peak-to-average power ratio.

The Court accordingly hereby construes “**substantially scramble the phase characteristics of the plurality of carrier signals**” to mean “**adjust the phase characteristics of the carrier signals by varying amounts to produce a transmission signal with a reduced peak-to-average power ratio (PAR).**”

14. “same bit value”

15. “multiple carrier signals corresponding to the scrambled carrier signals are used by the first multicarrier transceiver to modulate the same bit value”

<p align="center">“same bit value” ’008 Patent, Claim 14</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“value of the same bit”	Indefinite
<p align="center">“multiple carrier signals corresponding to the scrambled carrier signals are used by the first multicarrier transceiver to modulate the same bit value” ’008 Patent, Claim 14</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“a first carrier signal is used by the first multicarrier transceiver to demodulate the value of a bit of the received bit stream and at least one more carrier signal is used by the first multicarrier transceiver to demodulate the value of the same bit of the received bit stream, wherein the carrier signals correspond to the plurality of phase-shifted and scrambled carrier signals” ²	Indefinite

(Dkt. No. 107, Ex. A, at 80–82; *id.*, Ex. B, at 11; Dkt. No. 146, App’x A, at 7; Dkt. No. 149, App’x A, at 55.)

² Deletions by Plaintiff’s counsel during the June 1, 2022 hearing are shown in ~~strikeout~~. Plaintiff also previously proposed: “a first carrier signal is used by the first multicarrier transceiver to *modulate* the value of a bit of the received bit stream and at least one more carrier signal is used by the first multi carrier transceiver to *modulate* the value of the same bit of the received bit stream, wherein the carrier signals correspond to the plurality of phase-shifted and scrambled carrier signals.” (Dkt. No. 107, Ex. A, at 81–82 (emphasis added).)

(a) The Parties' Positions

Plaintiff argues that whereas “Defendants argue that the ‘same bit value’ could refer to either the bit position or the value of the bit,” “the specification, as Defendants recognize, explains that the ‘bit value’ refers to the data carried by a carrier signal.” (Dkt. No. 124, at 18 (citations omitted).)

Defendants respond: “Both of these terms refer to the ‘same bit value,’ which is indefinite because a POSITA would not understand with reasonable certainty whether ‘same bit value’ refers to the same bit position or instead refers to the same bit value as between 0’s and 1’s. As discussed below, TQ Delta itself has taken inconsistent positions regarding this term, demonstrating that the term is indefinite: TQ Delta adopted the former construction (same bit position) in Delaware, but now proposes a different construction (value of the same bit).” (Dkt. No. 135, at 17 (citation omitted).) Defendants also argue that “different meanings used in the specification create uncertainty over claim scope, and the prosecution history does not provide any guidance either.” (*Id.*, at 18 (citation omitted).)

Plaintiff replies that “Defendants contrive an indefiniteness argument based on a false dichotomy that the Patent discloses two different concepts: 1) ‘same input data bits’ (or ‘input data bit’) which Defendants’ contend means the bit position in a data stream, and 2) ‘bit value’ which refers to the actual value of the bit, 0 or 1.” (Dkt. No. 140, at 7.) Plaintiff submits that the District of Delaware rejected Defendants’ argument. (*Id.*)

At the June 1, 2022 hearing, Defendants argued that although the specification supports two interpretations of these disputed terms, and although both interpretations are reasonable, a person of ordinary skill in the art would be unable to determine which of these two different interpretations is correct. Defendants also argued that the construction by the District of

Delaware,” construing “same bit value” to mean “value of the same bit,” does not resolve this ambiguity. Plaintiff argued that Defendants are presenting a false dichotomy by attempting to distinguish between mapping a particular bit value (a “1” or a “0”) and mapping a particular bit (which is at a particular position in a bit stream). Plaintiff argued that the claim language at issue simply recites that the value of a particular bit in the bit stream is modulated onto multiple carriers.

(b) Analysis

Claim 14 of the ’008 Patent recites (emphasis added):

14. A multicarrier system including a first transceiver that uses a plurality of carrier signals for modulating a bit stream, wherein each carrier signal has a phase characteristic associated with the bit stream, the transceiver capable of:

associating each carrier signal with a value determined independently of any *bit value* of the bit stream carried by that respective carrier signal, the value associated with each carrier signal determined using a pseudo-random number generator;

computing a phase shift for each carrier signal based on the value associated with that carrier signal; and

combining the phase shift computed for each respective carrier signal with the phase characteristic of that carrier signal to substantially scramble the phase characteristics of the plurality of carrier signals, wherein *multiple carrier signals corresponding to the scrambled carrier signals are used by the first transceiver to modulate the same bit value.*

Defendants’ expert opines that “same bit value” is unclear because it could refer to *either* the bit *position* or the *value* of the bit. (See Dkt. No. 135, Ex. 24, Mar. 14, 2022 Zimmerman Decl. at ¶¶ 75–82.)

Plaintiff cites the opinion of its expert that persons of skill in the art would have understood that the term “same bit value” refers to the “value of the same bit.” (Dkt. No. 124, Ex. 11, Mar. 2022 Madisetti Decl. at ¶¶ 57–77.)

The construction of “same bit value” as meaning “value of the same bit” is consistent with disclosures in the specification regarding reducing PAR (peak-to-average power ratio) by

scrambling, thereby mitigating or avoiding clipping and excessive power consumption. *See id.* at

¶¶ 52–61. For example, the Background of the Invention section of the specification discloses:

If the phase of the modulated carriers is not random, then the PAR can increase greatly. Examples of cases where the phases of the modulated carrier signals are not random are when bit scramblers are not used, multiple carrier signals are used to modulate the same input data bits, and the constellation maps, which are mappings of input data bits to the phase of a carrier signal, used for modulation are not random enough (i.e., a zero value for a data bit corresponds to a 90 degree phase characteristic of the DMT carrier signal and a one value for a data bit corresponds to a –90 degree phase characteristic of the DMT carrier signal). An increased PAR can result in a system with high power consumption and/or with high probability of clipping the transmission signal. Thus, there remains a need for a system and method that can effectively scramble the phase of the modulated carrier signals in order to provide a low PAR for the transmission signal.

’008 Patent at 2:15–30. The specification discloses using a phase scrambler to shift the phases of the carriers for particular bit values to reduce the PAR of the signal. *See id.* at 3:31–5:14; *see also* Dkt. No. 124, Ex. 11, Mar. 2022 Madisetti Decl. at ¶¶ 62–70.

Plaintiff also notes disclosure regarding scrambling by using phase shifts that are independent of the values of the input bits, such as that “[a] phase shift is computed for each carrier signal based on [a] value associated with that carrier signal” and “[t]he value is determined independently of any input bit value carried by that carrier signal.” ’008 Patent at 2:37–40 & 2:55–56; *see id.* at 4:48–63 (“The phase scrambler 66 determines each value for a carrier signal independently of the QAM symbols 58, and, therefore, independently of the bit value(s) modulated onto the carrier signal.”); *see also id.* at 5:2–3 (“When the equation is independent of the bit values of the input serial bit stream 54, the computed phase shifts are also independent of such bit values.”); Dkt. No. 135, Ex. 24, Mar. 14, 2022 Zimmerman Decl. at ¶ 78 (“In these passages, a person of ordinary skill would understand that the specification is referring to the value (0 or 1) of any given bit, rather than the specific position of the bit in the bit stream.”).

The District of Delaware rejected an indefiniteness argument as to related patents, namely United States Patents No. 8,073,041, 8,218,610, and 8,355,427:

I am not persuaded by Defendants’ argument that this term is indefinite because the patent is ambiguous as to the meaning of “same [input] bit value.” (*Id.* at 67 (citing *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014))). In my opinion, a person of ordinary skill in the art would read the term “same [input] bit value” as “value of the same bit.” As I understand it, once the phase characteristics of the carrier signals have been adjusted by the phase scrambler in the transmitting transceiver, they are then demodulated by the phase descrambler in the receiving transceiver. (*See, e.g.*, ’041 patent, 4:42–46; *see also* D.I. 365 at A327–28 ¶ 63). Thus, the transmitting transceiver and the receiving transceiver are complementary. The bit values that are demodulated on the receiving side mirror the bit values that are modulated on the transmitting side. It makes sense, therefore, that the term “same [input] bit value” refers to “value of the same bit.”

Delaware Family 4 CC Opinion at 10. This analysis by the District of Delaware pertained to claims that involved demodulation, and the disputed term there at issue referred to “demodulat[ing] a same [input] bit value.” Defendants argued at the June 1, 2022 hearing that the claim at issue in the present case is more confusing than the claims addressed by the District of Delaware because those claims referred specifically to “the received bit stream.” *Nautilus*, however, requires “reasonable certainty,” not “absolute precision.” 134 S. Ct. at 2129. In the present case, the claim at issue recites “a first transceiver that uses a plurality of carrier signals for modulating a bit stream,” and the claim uses the term “same bit value” in relation to the recital of “bit value[s] of the bit stream” that are modulated. The term “same bit value,” and the construction of that term by the District of Delaware to mean “value of the same bit,” are reasonably clear in the context of the recited bit stream, such that the value of a particular bit in the bit stream is modulated onto multiple carriers. The claim scope is thus reasonably clear. The opinions of Plaintiff’s expert are further persuasive in this regard. (Dkt. No. 124, Ex. 11, Mar. 2022 Madisetti Decl. at ¶ 74.)

The provisional patent application cited by Defendants does not warrant finding otherwise. (See Dkt. No. 135, at 17; *see also id.*, Ex. 26, United States Provisional Patent Application No. 60/164,134, at 2 (discussing that “several modulated carriers may have the same phase” if, for example: “The same data bits are used to modulate multiple carriers. This would occur in cases where it was desired (or required) to send the same data bits on different carriers and then combine the results at the receiver in order to receive the bits at a lower Bit Error Rate (this is a well-known method for using frequency diversity to decrease the BER).”). The cited portions of the provisional patent application do not refer to bit “values” and therefore do not give rise to any ambiguity regarding the meaning of the term “same bit value.”

In light of all of the foregoing, the indefiniteness opinions of Defendants’ expert are unpersuasive. (Dkt. No. 135, Ex. 24, Mar. 14, 2022 Zimmerman Decl. at ¶¶ 75–82.) Defendants do not meet their burden to show any lack of reasonable certainty as to the scope of these terms. *See Nautilus*, 572 U.S. at 910; *see also Sonix*, 844 F.3d at 1377. Defendants also submit that “in the Delaware litigation, *TQ Delta itself* interpreted ‘same bit value’ according to the first understanding described above, *i.e.*, ‘same bit position,’” arguing that the “second understanding” (same value) is “unreasonably broad and would render the entire term superfluous.” (Dkt. No. 135, at 18–19 (quoting *id.*, Ex. 27, Joint Claim Construction Brief, at 64).) Defendants’ argument that Plaintiff’s interpretation of these terms is too broad is unpersuasive in light of the above-cited analysis by the District of Delaware as well as by this Court’s analysis above. Also, as a more general matter, “breadth is not indefiniteness.” *BASF Corp. v. Johnson Matthey Inc.*, 875 F.3d 1360, 1367 (Fed. Cir. 2017) (quoting *SmithKline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331, 1341 (Fed. Cir. 2005)).

<u>Term</u>	<u>Construction</u>
“same bit value”	“value of the same bit”
“multiple carrier signals corresponding to the scrambled carrier signals are used by the first multicarrier transceiver to modulate the same bit value”	Plain meaning (apart from the Court’s construction of “same bit value,” above)

<p align="center">“computing a phase shift for each carrier signal” ‘008 Patent, Claim 14</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning. No construction necessary.	“computing the amount by which a phase is adjusted for each carrier signal”

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“[d]efining a ‘shift’ as ‘the amount by which a phase is adjusted’ does not help a jury beyond what the claims already recite,” “[a]nd it appears that Defendants’ construction calls for computing a specific ‘amount’ by which a phase is adjusted, while the plain language can encompass simply computing the fact that a phase shift exists.” (*Id.*)

Defendants respond that determining the *existence* of a phase shift is not “computing” a phase shift. (Dkt. No. 135, at 19.)

Plaintiff replies that “[t]he claim omits the limitation ‘computing the amount,’ even though the specification uses the word ‘amount of the phase shift’ (in a different context, as described below), indicating that had the patentee intended to limit the claims to computing an amount, he could have done so.” (Dkt. No. 140, at 8.)

(b) Analysis

Claim 14 of the ’008 Patent recites (emphasis added):

14. A multicarrier system including a first transceiver that uses a plurality of carrier signals for modulating a bit stream, wherein each carrier signal has a phase characteristic associated with the bit stream, the transceiver capable of:

associating each carrier signal with a value determined independently of any bit value of the bit stream carried by that respective carrier signal, the value associated with each carrier signal determined using a pseudo-random number generator;

computing a phase shift for each carrier signal based on the value associated with that carrier signal; and

combining the phase shift computed for each respective carrier signal with the phase characteristic of that carrier signal to substantially scramble the phase characteristics of the plurality of carrier signals, wherein multiple carrier signals corresponding to the scrambled carrier signals are used by the first transceiver to modulate the same bit value.

In this context, interpreting “computing a phase shift for each carrier signal” as referring to the mere existence of a phase shift would be a far less natural reading than interpreting this term as referring to an amount by which a phase is adjusted. In particular, the limitation at issue refers to “computing a phase shift for each carrier signal *based on the value* associated with that

carrier signal,” and Plaintiff does *not* persuasive show how “computing” a phase shift “based on” a “value” could encompass determining merely whether a phase shift exists or not.

This is also consistent with disclosure in the specification:

The DMT transmitter 22 then *computes* (step 115) the phase shift that is used to adjust the phase characteristic of each carrier signal. The *amount* of the phase shift combined with the phase characteristic of each QAM-modulated carrier signal depends upon the equation used and the one or more values associated with that carrier signal.

’008 Patent at 6:41–46 (emphasis added). Plaintiff argues that this disclosure of an “amount” does not warrant interpreting “computing” to *require* determining an amount, Plaintiff arguing that “[t]his indicates that the amount of the phase shift depends on the equation used, not that the system must compute the amount.” (Dkt. No. 140, at 8.) A fair reading of this disclosure, however, is that “computes” in the first sentence gives rise to the “amount” in the second sentence. *See* ’008 Patent at 6:41–46; *see also id.* at 4:64–5:4 (“The phase scrambler 66 then solves a predetermined equation to compute a phase shift for the carrier signal”) & 9:16–28 (“Because the generation of phase shifts in this embodiment is based on values that vary over time, the phase shifts computed for the subsequent DMT symbol 70’ are different than those that were previously computed for the DMT symbol 70 with the clipped time domain sample.”).

This interpretation of the claim language is also consistent with the construction reached by the District of Delaware for the same term in the same claim, wherein the court rejected Plaintiff’s proposal of a plain and ordinary meaning construction and instead construed “computing a phase shift for each carrier signal” to mean “computing the amount by which a phase is adjusted for each carrier signal,” which is the construction that Defendants propose in the present case. *Delaware Family 4 CC Opinion* at 17–18. The District of Delaware construed

the constituent term “phase shift” to mean “the amount by which a phase is adjusted,” Plaintiff there having proposed “the amount by which a phase is (or will be) shifted.” *Id.* at 12–14.

Plaintiff argues that the District of Delaware “addressed different issues (whether a phase shift was the ‘*angle* by which the phase . . . is *rotated*’ and whether it was necessary to expressly include in the construction retrospective, contemporaneous, and prospective phase shifts).” (Dkt. No. 124, at 19–20.) In light of the foregoing, Plaintiff does not persuasively justify departing from the construction reached by the District of Delaware, particularly as to Plaintiff’s suggestion that this term could encompass determining the mere existence of a phase shift.

The Court therefore hereby construes **“computing a phase shift for each carrier signal”** to mean **“computing the amount by which a phase is adjusted for each carrier signal.”**

17. “combining the phase shift computed for each respective carrier signal with the phase characteristic of that carrier signal”

“combining the phase shift computed for each respective carrier signal with the phase characteristic of that carrier signal” ‘008 Patent, Claim 14	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning. No construction necessary.	“adjusting the phase of each carrier signal by an amount computed for that carrier signal”

(Dkt. No. 107, Ex. A, at 83; Dkt. No. 146, App’x A, at 8; Dkt. No. 149, App’x A, at 58.)

(a) The Parties’ Positions

Plaintiff argues that while “[i]t is true that the Delaware Court entered the Defendants’ proposed construction (which was agreed to),” “Defendants’ proposed construction largely

copies over its ‘phase shift’ proposal and may be read to overly limit this term for the same reasons.” (Dkt. No. 124, at 20 (citation omitted).)

Defendants respond by incorporating their arguments as to the term “computing a phase shift for each carrier signal,” which is discussed above. (Dkt. No. 135, at 19–20.) Plaintiff replies likewise. (*See* Dkt. No. 140, at 7–8.)

(b) Analysis

Claim 14 of the ’008 Patent recites (emphasis added):

14. A multicarrier system including a first transceiver that uses a plurality of carrier signals for modulating a bit stream, wherein each carrier signal has a phase characteristic associated with the bit stream, the transceiver capable of:

associating each carrier signal with a value determined independently of any bit value of the bit stream carried by that respective carrier signal, the value associated with each carrier signal determined using a pseudo-random number generator;

computing a phase shift for each carrier signal based on the value associated with that carrier signal; and

combining the phase shift computed for each respective carrier signal with the phase characteristic of that carrier signal to substantially scramble the phase characteristics of the plurality of carrier signals, wherein multiple carrier signals corresponding to the scrambled carrier signals are used by the first transceiver to modulate the same bit value.

This term presents substantially the same dispute as the term “computing a phase shift for each carrier signal,” which is discussed above, and for essentially the same reasons the Court expressly rejects Plaintiff’s argument that “the phase shift computed for each respective carrier signal” could refer to merely the existence of a phase shift.

Defendants’ proposal, however, would tend to confuse rather than clarify the scope of the disputed term. Instead, this dispute is already adequately addressed by the Court’s construction of “computing a phase shift for each carrier signal,” above. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291; *Bayer*, 989 F.3d at 977–79.

Plaintiff submits that “[t]he Family 6 Patents generally relate to techniques to adapt noise protection to changing conditions while continuing to communicate data.” (Dkt. No. 124, at 1 (citation omitted).)

Evaluation of the impact of impulse noise on a communication system can be utilized to determine how the system should be configured to adapt to impulse noise events. Moreover, the system allows for information regarding impulse noise events, such as length of the event, repetition period of the event and timing of the event, to be collected and forwarded to a destination. The adaptation can be performed during one or more of Showtime and initialization, and can be initiated and determined at either one or more of a transmitter and a receiver.

<p align="center">“steady-state communication” ’835 Patent, Claim 8 ’112 Patent, Claim 8</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“Showtime”	“the state of the transceiver reached after all initialization and training is completed in which user data is transmitted or received”

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(a) The Parties' Positions

Plaintiff argues that whereas “Defendants’ proposal is what the parties agreed to in Delaware,” Plaintiff’s proposal “matches the specification’s definition.” (Dkt. No. 124, at 20–21 (citation omitted).)

Defendants respond that “Defendants’ proposed construction is consistent with the plain and ordinary meaning of the term ‘steady-state communication,’ while TQ Delta’s construction limits the term to an example embodiment in the specification.” (Dkt. No. 135, at 20 (citations omitted).) Defendants argue that “the specification explains that ‘steady-state communication’ may be consistent with ‘Showtime’ *for DSL technologies*, but the claims are not limited to DSL technologies.” (*Id.*)

Plaintiff replies that “[i]n five places, the Patents define a steady-state communication as “Showtime,” and “[t]he term ‘Showtime’ appears over 50 times, reinforcing that the Family 6 Patents are about xDSL systems.” (Dkt. No. 140, at 8 (citing ’348 Patent at 2:43–49, 4:3–7, 4:25–31, 8:25–27 & 9:40–43).)

(b) Analysis

Claim 8 of the ’835 Patent, for example, recites (emphasis added):

8. An apparatus configurable to adapt forward error correction and interleaver parameter (FIP) settings during *steady-state communication* or initialization comprising:

a transceiver, including a processor, configurable to:
 transmit a signal using a first FIP setting,
 transmit a flag signal, and
 switch to using for transmission, a second FIP setting
 following transmission of the flag signal,

wherein:

the first FIP setting comprises at least one first FIP value,
 the second FIP setting comprises at least one second FIP
 value, different than the first FIP value, and

the switching occurs on a pre-defined forward error correction codeword boundary following the flag signal.

The specification discloses:

The current technique includes the steps of an operator, or service provider, configuring the ADSL connection with a specific noise protection value, the ADSL connection is initialized and the transceivers enter into steady state data transmission (i.e., Showtime), and if the connection is stable, i.e., error-free, then the service is acceptable and the process ends.

* * *

The process of determining the impact of impulse noise by transmitting and receiving using a plurality of FIP settings can be done while in steady-state transmission, i.e., Showtime for DSL systems, when user information bits are being transmitted.

'835 Patent at 2:42–49 & 4:3–7; *see id.* at 4:25–31 (“steady-state transmission during which user information is transmitted is known as ‘Showtime’ in XDSL systems”), 8:25–27 (“regular, i.e., Showtime, operation”) & 9:40–43 (“regular steady-state transmission, i.e., Showtime in ADSL”).

In general, “the usage ‘i.e.’ (‘id est’ or ‘that is’), ‘signals an intent to define the word to which it refers.’” *TF3 Ltd. v. Tre Milano, LLC*, 894 F.3d 1366, 1372 (Fed. Cir. 2018) (quoting *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1334 (Fed. Cir. 2009)); *see TF3*, 894 F.3d at 1372 (“‘i.e.’ is definitional when it ‘comports with the inventors’ other uses . . . in the specification and with each and every other reference”) (quoting *SkinMedica, Inc. v. Histogen Inc.*, 727 F.3d 1187, 1202 (Fed. Cir. 2013)).

Here, however, several of the above-cited disclosures imply that “DSL systems” are an example rather than a necessary limitation. *See* ’835 Patent at 4:3–7 (“i.e., Showtime *for DSL systems*”); *see also id.* at 4:25–31 & 9:40–43 (quoted above). Thus, despite the patentee’s use of “i.e.,” the patentee did not clearly define the disputed claim term as meaning “Showtime.” *See CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (“[T]he claim term

The Court therefore hereby construes “**steady-state communication**” to mean “**the state of the transceiver reached after all initialization and training is completed in which user data is transmitted or received.**”

19. “FIP setting”**20. “FIP value”**

“FIP setting” ’835 Patent, Claims 8, 10, 26; ’112 Patent, Claim 8	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning. No construction necessary.	“forward error correction and interleaver parameters characterized by the set of parameters for codeword size in bytes, number of information bytes in a codeword, number of parity or redundancy bytes in a codeword, and interleaver depth in number of codewords”
“FIP value” ’835 Patent, Claim 8	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning. No construction necessary.	“numerical value of codeword size in bytes, number of information bytes in a codeword, number of parity or redundancy bytes in a codeword, or interleaver depth in number of codewords”

(Dkt. No. 107, Ex. A, at 87 & 89; *id.*, Ex. B, at 13; Dkt. No. 146, App’x A, at 8–9; Dkt. No. 149, App’x A, at 61 & 63.)

(a) The Parties’ Positions

Plaintiff argues that “Defendants propose a construction for these terms that the Delaware Court correctly rejected.” (Dkt. No. 124, at 23.) Plaintiff submits that “‘FIP’ is an acronym for ‘Forward Error Correction and Interleaving,’” and “[a] FIP setting (or value) simply refers to forward error correction and interleaver parameters (or values).” (*Id.*)

Defendants respond that “[b]ecause the Family 6 Patents define ‘FIP Settings’ as the N, K, R, and D parameters with particular definitions in the specification, the Court should construe the term consistent with Defendants’ proposed construction.” (Dkt. No. 135, at 22.) Defendants also argue: “TQ Delta provides no justification for its plain-and-ordinary-meaning construction beyond citing the Delaware court’s opinion on this term. That court incorrectly held that an extrinsic standard referenced in the Family 6 Patents shows that the FIP Settings may comprise additional parameters other than the N, K, R, and D parameters.” (*Id.*, at 23 (citation omitted).)

Plaintiff replies: “Defendants ignore the provisional application’s disclosure of ‘FIP settings’ and ‘FIP values’—which includes parameters besides the four that Defendants limit this term to. Opening Br. at 22–24. That disclosure shows that Defendants’ construction is wrong. The remainder of Defendants’ arguments were rejected by the Delaware Court (*e.g.*, that measuring interleaver depth is not limited to ‘codeword size’), holdings that Defendants do not substantively address.” (Dkt. No. 140, at 9.)

(b) Analysis

Claim 8 of the ’835 Patent, for example, recites (emphasis added):

8. An apparatus configurable to adapt *forward error correction and interleaver parameter (FIP) settings* during steady-state communication or initialization comprising:

a transceiver, including a processor, configurable to:
 transmit a signal using a first *FIP setting*,
 transmit a flag signal, and
 switch to using for transmission, a second *FIP setting*
 following transmission of the flag signal,

wherein:

the first *FIP setting* comprises at least one first *FIP value*,
 the second *FIP setting* comprises at least one second *FIP value*, different than the first *FIP value*, and
 the switching occurs on a pre-defined forward error correction codeword boundary following the flag signal.

Defendants argue that the terms “FIP setting” and “FIP value” have *not* been known terms of art outside of the Family 6 Patents. For example, Defendants’ expert opines: “While a person of ordinary skill in the art would have generally understood that the processes of forward error correction encoding and interleaving are usually governed by certain parameters, a person of ordinary skill in the art would have been unfamiliar with the particular initialism ‘FIP’ as used in the Family 6 Patents.” (*See* Dkt. No. 135, Ex. 23, Mar. 14, 2022 McNair Decl., at ¶ 58.) Defendants argue that the meanings of these terms should be limited to the parameters disclosed for these terms in the specification. (*See id.* at ¶ 59; *see also* ’835 Patent at 1:65–2:20.)

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are best understood by reference to the specification.”) (citing *Phillips*, 415 F.3d at 1315); *see also Irdeto Access, Inc. v. EchoStar Satellite Corp.*, 383 F.3d 1295, 1300 (Fed. Cir. 2004) (“absent . . . an accepted meaning [in the art], we construe a claim term only as broadly as provided for by the patent itself”).

Here, however, Defendants acknowledge that forward error correction and interleaving were known concepts at the time of the claimed inventions. (*See* Dkt. No. 135, Ex. 23, Mar. 14, 2022 McNair Decl., at ¶ 58.) The patentee’s use of the acronym “FIP” did not erase what a person of ordinary skill in the art at the relevant time would have known about parameters for forward error correction and interleaving.

The Court therefore reaches the same conclusions and constructions as the District of Delaware for these terms, and the Court accordingly hereby construes these disputed terms as set forth in the following chart:

<u>Term</u>	<u>Construction</u>
“FIP setting”	“set including at least one forward error correction parameter value and at least one interleaver parameter value”
“FIP value”	“numerical value of a forward error correction parameter or numerical value of an interleaver parameter”

(Dkt. No. 107, Ex. A, at 90–91; *id.*, Ex. B, at 14; Dkt. No. 146, App’x A, at 9; Dkt. No. 149, App’x A, at 64.)

Plaintiff submits that “[b]oth parties propose the same affirmative construction,” and “TQ Delta does not believe there is a claim-scope dispute between the parties on this term.” (Dkt. No. 124, at 21.) Plaintiff also submits that “[t]he parenthetical that TQ Delta proposes was agreed-to in the Delaware case” and “clarifies what the affirmative construction already states—that a flag signal is different than message data, a distinction reflected in the intrinsic record.” (*Id.* (citations omitted).)

Plaintiff responds: “Defendants do not identify a claim-scope dispute with TQ Delta’s proposed construction, which was agreed-to in Delaware. A flag signal, as the Patents teach (Opening Br. at 21), is different than message data, which Defendants do not meaningfully contest.” (*Id.*, at 8–9.)

In a supplemental brief permitted by leave of Court (*see* Dkt. Nos. 159), Defendants submit Preliminary Responses filed by Plaintiff on May 25, 2022, in *Inter Partes* Review (“IPR”) proceedings being conducted by the Patent Trial and Appeal Board (“PTAB”) regarding the ’835 Patent. (*See* Dkt. No. 157.) Defendants argue that Plaintiff, in these Preliminary Responses, argues that the construction by the District of Delaware was wrong and also proposes a parenthetical that is different than what Plaintiff proposes for the construction in the present case. (*See id.*, at 1.) Defendants argue that “TQ Delta appears to be strategically taking different positions in district court and before the PTAB to try to preserve the validity of the ’835 patent over the prior art.” (*Id.*, at 2.)

(b) Analysis

Claim 8 of the ’835 Patent, for example, recites (emphasis added):

8. An apparatus configurable to adapt forward error correction and interleaver parameter (FIP) settings during steady-state communication or initialization comprising:

a transceiver, including a processor, configurable to:
 transmit a signal using a first FIP setting,
 transmit a *flag signal*, and
 switch to using for transmission, a second FIP setting
 following transmission of the *flag signal*,

wherein:

the first FIP setting comprises at least one first FIP value,
 the second FIP setting comprises at least one second FIP
 value, different than the first FIP value, and
 the switching occurs on a pre-defined forward error
 correction codeword boundary following the *flag*
 signal.

The District of Delaware adopted a parenthetical that appeared in “compromise constructions” submitted by each side in that case. *See Delaware Family 6 CC Opinion* at 4. That is, each side proposed a main construction and a compromise construction, and although the compromise constructions differed from one another, both compromise constructions included

nearly the same parenthetical (defendant’s proposed parenthetical referred to a “FEC codeword counter value” and Plaintiff’s proposed parenthetical referred to a “FEC codeword counter,” without the word “value”). *Id.*

The District of Delaware adopted the proposal by the defendants in that case, such that the District of Delaware construed “flag signal” to mean “signal used to indicate when an updated FIP setting is to be used (the signal does not include the FEC codeword counter value upon which the updated FIP setting is to be used).” *Id.* at 5; *see id.* at 4–6.

Plaintiff proposes a parenthetical different from the one adopted by the District of Delaware, and Plaintiff cites disclosure in the specification:

FIG. 6 illustrates an exemplary method of synchronization using a flag signal according to this invention. In particular, control begins in step S600 and continues to step S610. In step S610, the modems enter Showtime using the first FIP parameters. Next, in step S620, a message is exchanged indicating the new FIP settings. Then, in step S630, the transmitter forwards to the receiver a *flag signal* indicating when the new FIP settings are to be used.

At step S640, and at a *predefined change time following the transmission of the flag signal*, the transmitter begins transmission using the new FIP parameters. Next, at step S650, at the *predefined change time following the reception of the flag signal*, the receiver commences reception utilizing the new FIP parameters. Control then continues to step S660 where Showtime communication continues with the control sequence ending at step S670.

’835 Patent at 19:14–30.

The disclosure thus explains that, in this embodiment, the “flag signal” does not itself specify a time but rather there is a “predefined change time following the transmission of the flag signal.” *Id.* In other words, a “flag signal” is a signal *to* change, not a signal of *when* to change. Other disclosure in the specification is similar in this regard. *See id.* at 11:66–12:24 (“For synchronization using a flag signal, the receiver and transmitter would start using updated FEC and interleaving parameters on a pre-defined FEC codeword boundary following the sync flag.”).

Construing the term “flag signal” in light of this disclosure in the specification does not improperly limit the term to a particular embodiment because the surrounding claim language, such as in above-reproduced Claim 8 of the ’835 Patent, recites that “the switching occurs on a *pre-defined* forward error correction codeword boundary *following the flag signal*.” This usage of “pre-defined” and “following” demonstrates that a “flag signal” does not itself set forth a change time but rather is merely an indication that the updated FIP setting / interleaver parameter value should be used at some juncture that is pre-defined in relation to when the flag signal is received. The specification contrasts this with other synchronization methods, such as using codeword counters. *See id.* at 8:67–9:2 (“... at a synchronized point in time”), 9:23–27 (“this transition can be synchronized using a number of different exemplary methods”), 11:10–65 (“counting the FEC codewords from the beginning of Showtime and the transition would occur when a specific FEC codeword counter value that is known by both the transmitter 300 and the receiver 200 is reached”) & 18:61–19:10 (“a message with the FEC codeword counter value on which the new FIP values are to be used is exchanged” and “a determination is made whether the counter value has been reached”).

Finally, as to Defendants’ supplemental submission of IPR Preliminary Responses that Plaintiff filed with the PTAB, those Preliminary Responses set forth a proposal by Plaintiff to construe “flag signal” to mean “signal used to indicate when an updated FIP setting is to be used, where the signal does not include information (*e.g.*, a FEC codeword counter value) specifying when the updated FIP setting is to be used.” (Dkt. No. 157, Ex. 37, May 25, 2022 Patent Owner’s Preliminary Response, at 9; *see id.* at 5–9; *see also id.*, Ex. 38, May 25, 2022 Patent Owner’s Preliminary Response, at 6–9.) These Preliminary Responses do not affect the Court’s analysis, particularly given that Plaintiff states in these Preliminary Responses that the

parenthetical set forth by the District of Delaware in its claim construction is “accurate” (albeit, Plaintiff argues, “incomplete”). For the reasons set forth above, the Court adopts the District of Delaware construction rather than the construction proposed by Plaintiff in the present case, so Defendants’ reliance on the Preliminary Responses to undermine Plaintiff’s proposal, even if found persuasive, would be of no significant effect. Plaintiff’s arguments in the Preliminary Responses also present nothing that would warrant abandoning the parenthetical adopted by the District of Delaware that the Court here, too, finds appropriate to make clear that a “flag signal” does not include a counter value upon which an updated FIP setting will be used, as discussed above.

The Court therefore hereby construes **“flag signal”** to mean **“signal used to indicate when an updated FIP setting is to be used (the signal does not include the FEC codeword counter value upon which the updated FIP setting is to be used).”**

22. “interleaver parameter value”

“interleaver parameter value” ’835 Patent, Claims 10, 26; ’162 Patent, Claim 8	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning. No construction necessary.	“the numerical value of the interleaver depth in number of codewords”

(Dkt. No. 107, Ex. A, at 93; *id.*, Ex. B, at 14; Dkt. No. 146, App’x A, at 9; Dkt. No. 149, App’x A, at 65.)

(a) The Parties’ Positions

Plaintiff argues:

The plain-and-ordinary meaning of this term references the interleaver depth, which is a value that can be expressed in multiple ways, such as bits, bytes, or codewords (just like distance can be expressed in inches, feet, and yards). Defendants’ proposal improperly limits the term to *one* way to express that depth: “in number of codewords.” This improperly limits the claims to one disclosed example. And the Delaware Court rejected the same attempt to improperly limit the claims.

(Dkt. No. 124, at 22 (citation omitted).)

Defendants respond that “similar to ‘FIP Setting,’ ‘interleaver parameter value’ was not a term of art at the time of the alleged invention and did not have a generally understood meaning,” so “a POSITA [(person of ordinary skill in the art)] would have looked to the specification of the Family 6 Patents to understand the term ‘interleaver parameter value,’ which defines the term as ‘interleaver depth in number of codewords.’” (Dkt. No. 135, at 23 (citations omitted).)

Plaintiff replies as to this term together with its reply as to “FIP setting” and “FIP value,” which are addressed above. (Dkt. No. 140, at 9.)

(b) Analysis

Claim 10 of the ’835 Patent, for example, recites (emphasis added):

10. The apparatus of claim 8, wherein a first *interleaver parameter value* of the first FIP setting is different than a second *interleaver parameter value* of the second FIP setting.

The District of Delaware rejected a proposal by the defendants in that case to construe this disputed term to mean “the numerical value of the interleaver depth in number of codewords.” *Delaware Family 6 CC Opinion* at 7. The District of Delaware found that “[b]ecause ‘interleaver depth’ can be measured using a unit other than ‘number of codewords,’ the specification’s reference to measuring ‘interleaver depth’ ‘in number of codewords’ must be a mere embodiment.” *Id.* at 8; *see id.* at 8–9.

The District of Delaware construed “interleaver parameter value” to mean “numerical value of the interleaver depth.” *Id.* at 7; *see id.* at 7–11.

Defendants argue that their proposal of “number of codewords” is based on a definition of the term “interleaver parameter value” in the specification, but a lexicography must be clear, and the disclosures cited by Defendants relate to specific embodiments and do not purport to define the term “interleaver parameter value” in general. *See* ’162 Patent at 2:10–22, 3:33–49 & 13:43–47; *see also CCS Fitness*, 288 F.3d at 1366 (“[T]he claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and *clearly* set forth a definition of the disputed claim term in either the specification or prosecution history.”) (citation omitted; emphasis added).

The opinions of Defendants’ expert do not compel otherwise. (*See* Dkt. No. 135, Ex. 23, Mar. 14, 2022 McNair Decl., at ¶¶ 58–61.) In particular, Defendants’ expert opines that “[w]hile a person of ordinary skill in the art would have generally understood that the processes of forward error correction encoding and interleaving are usually governed by certain parameters, a person of ordinary skill in the art would have been unfamiliar with the particular initialism ‘FIP’ as used in the Family 6 Patents,” and “[b]ecause the Family 6 Patents specially define the term ‘FIP,’ a person of ordinary skill in the art would have understood the Family 6 Patents to be referring to particular FEC and interleaving parameters as explained in the Family 6 Patents.” (*Id.*, at ¶ 58.) The patentee’s use of the acronym “FIP” did not erase what a person of ordinary skill in the art at the relevant time would have known about parameters for interleaving and, as noted above, the patentee did not set forth any clear lexicography.

Thus, Defendants do not persuasively justify limiting the construction to “number of codewords” or otherwise departing from the Delaware construction.

The Court therefore hereby construes **“interleaver parameter value”** to mean **“numerical value of the interleaver depth.”**

X. DISPUTED TERMS IN THE “FAMILY 9” PATENTS

Plaintiff submits that “[t]he Family 3 and 9 Patents generally relate to sharing resources, such as sharing memory between an interleaver and deinterleaver or a transmission function and a retransmission function.” (Dkt. No. 124, at 1 (citation omitted).)

The ’348 Patent, for example, titled “Packet Retransmission,” issued on July 28, 2015, and bears an earliest priority date of April 12, 2006. The Abstract of the ’348 Patent states:

Through the identification of different packet-types, packets can be handled based on an assigned packet handling identifier. This identifier can, for example, enable forwarding of latency-sensitive packets without delay and allow error-sensitive packets to be stored for possible retransmission. In another embodiment, and optionally in conjunction with retransmission protocols including a packet handling identifier, a memory used for retransmission of packets can be shared with other transceiver functionality such as, coding, decoding, interleaving, deinterleaving, error correction, and the like.

As to the term “receive at least one message without using interleaving” in Claims 37 and 53 of the ’577 Patent, Plaintiff states in its Reply Claim Construction Brief that “TQ Delta omitted the claims in which this term appears from its Preliminary Election of Asserted Claims. TQ Delta thus submits that the Court need not address this term.” (Dkt. No. 140, at 9.) Because Plaintiff no longer asserts the claims in which this term appears, the Court does not further address this term.

Also, the term “memory has been allocated” (’411 Patent, Claim 10) appears in Defendant’s portion of the Joint Claim Construction and Prehearing Statement, but this term is not addressed in the parties’ briefing. The Court therefore does not further address this term.

23. “higher immunity to noise”

<p style="text-align: center;">“higher immunity to noise” ’348 Patent, Claim 2</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
“higher SNR margin”	Plain and ordinary meaning

(Dkt. No. 107, Ex. A, at 95; *id.*, Ex. B, at 16; Dkt. No. 146, App’x A, at 9; Dkt. No. 149, App’x A, at 66.)

(a) The Parties’ Positions

Plaintiff argues that “[t]he Court should construe this term to help the jury understand the claims,” and “[t]he Patents explain that messages have ‘higher immunity to noise’ than a packet because they have a higher signal-to-noise (known as ‘SNR’) margin (which reflects the margin between the strength of the signal and the noise, typically expressed in decibels (dB)).” (Dkt. No. 124, at 24 (citing ’348 Patent at 16:4–9).)

Defendants respond that “TQ Delta provides no reason why the term should be limited to just one example (among several) referenced in the specification.” (Dkt. No. 135, at 25 (citation omitted).)

Plaintiff replies that “[t]he only part of the Patents that mention messages that have a higher immunity to noise ties it to a higher SNR margin.” (Dkt. No. 140, at 9 (citing ’348 Patent at 16:4–9).) Plaintiff argues that “[w]hile Defendants note that this disclosure is an ‘alternative[]’ (‘or in addition’) embodiment, the claims are dependent claims drawn to that embodiment,” “[a]nd Defendants’ cited portions do not refer to a message having a higher immunity to noise (they mention ‘robustness,’ including by sending the same message multiple times).” (*Id.*, at 9.)

(b) Analysis

Claims 1, 2, 9, and 10 of the '348 Patent, for example, recite (emphasis added):

1. An apparatus comprising:
 - a multicarrier transceiver including a processor and memory operable to:
 - transmit a packet* using a forward error correction encoder and an interleaver, wherein the packet comprises a header field and a plurality of PTM-TC codewords, a plurality of ATM cells or a plurality of Reed-Solomon codewords, and wherein the header field comprises a sequence identifier (SID); and
 - receive a plurality of messages* using a forward error correction decoder and without using a deinterleaver, wherein each message of the plurality of messages is received in a different DMT symbol and wherein at least one message of the plurality of messages includes an acknowledgement (ACK) or a negative acknowledgement (NACK) of the transmitted packet.
2. The apparatus of claim 1, wherein the received messages have a *higher immunity to noise* than the transmitted packet.

* * *

9. An apparatus comprising:
 - a multicarrier transceiver including a processor and memory operable to:
 - receive a packet* using a forward error correction decoder and a deinterleaver, wherein the packet comprises a header field and a plurality of PTM-TC codewords, a plurality of ATM cells or a plurality of Reed-Solomon codewords, and wherein the header field comprises a sequence identifier (SID); and
 - transmit a plurality of messages* using a forward error correction encoder and without using an interleaver, wherein each message of the plurality of messages is transmitted in a different DMT symbol and wherein at least one message of the plurality of messages includes an acknowledgement (ACK) or a negative acknowledgement (NACK) of the received packet.
10. The apparatus of claim 9, wherein the transmitted messages have a *higher immunity to noise* than the received packet.

The specification discloses:

Alternatively, or in addition, the DMT sub-carriers that modulate these messages could operate with a much *higher SNR margin* e.g., 15 dB, as compared to the normal 6 dB margin of xDSL systems. This way, the messages would have a *higher immunity to channel noise*.

'348 Patent at 16:4–9 (emphasis added).

The specification thus discloses that having a “higher SNR margin” (which is the construction proposed by Plaintiff) is *a manner in which* “higher immunity to noise” can be achieved. This does not mean that having “higher immunity to noise” necessary involves a higher SNR margin. For example, the specification also discloses that “messages can be sent with increasing robustness by repeating transmission of each message a number of times.” *Id.* at 15:33–35. Plaintiff’s proposal would improperly limit the disputed term to a specific feature of a particular disclosed embodiment and should be rejected. *See Phillips*, 415 F.3d at 1323.

The Court therefore hereby expressly rejects Plaintiff’s proposed construction, and no further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291; *Bayer*, 989 F.3d at 977–79.

The Court accordingly hereby construes **“higher immunity to noise”** to have its **plain meaning**.

24. “PTM-TC [(Packet Transfer Mode Transmission Convergence)] codewords”

“PTM-TC [(Packet Transfer Mode Transmission Convergence)] codewords” ’577 Patent, Claims 17, 37 ’348 Patent, Claims 1, 9 ’055 Patent, Claim 17	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning. No construction necessary	(None)

(Dkt. No. 107, Ex. A, at 96.)

Plaintiff submits: “TQ Delta also proposed ‘[p]lain and ordinary meaning. No construction necessary’ for the term ‘PTM-TC [(Packet Transfer Mode Transmission

Convergence)) codewords’ found in claims 17 and 37 of the ’577 Patent, claims 1 and 9 of the ’348 Patent, and claim 17 of the ’055 Patent. Dkt. 107-1, at 96. Defendants did not propose a construction for this term. *See generally* Dkt. 107-2.” (Dkt. No. 124, at 2 n.1.)

Defendants have not proposed a construction for this term and have not addressed this term in their responsive claim construction brief. At the June 1, 2022 hearing, the parties confirmed that this term is no longer in dispute, and Defendants agreed that this term has its plain and ordinary meaning.

The Court therefore hereby construes **“PTM-TC [(Packet Transfer Mode Transmission Convergence)] codewords”** to have its **plain meaning**.

25. “receive at least one packet using deinterleaving”

26. “[transmit/retransmit] at least one packet using interleaving”

27. “[transmit/receive] a [packet/plurality of messages] using a forward error correction [encoder/decoder] and [without using] [an/a interleaver/deinterleaver]”

28. “transmitting, by the transceiver, a packet using a forward error correction encoder and an interleaver”

29. “receiving, by the transceiver, at least one message using a forward error correction decoder and without using a deinterleaver”

30. “[transmitting/transmit/receiving/receive] a [packet/message] using forward error correction [encoding/decoding] and [without using] [interleaving/deinterleaving]”

31. “[retransmit/retransmitting] the packet using [the] forward error correction [encoder/encoding] and [the interleaver/interleaving]”

32. “[receive/receiving] a retransmitted packet using [the] forward error correction [decoder/decoding] and [the deinterleaver/deinterleaving]”

“receive at least one packet using deinterleaving”

’577 Patent, Claim 16

“[transmit/retransmit] at least one packet using interleaving”

’577 Patent, Claims 37, 38, 53, 54

<p>“[transmit/receive] a [packet/plurality of messages] using a forward error correction [encoder/decoder] and [without using] [an/a interleaver/deinterleaver]” ‘348 Patent, Claims 1, 9</p> <p>“transmitting, by the transceiver, a packet using a forward error correction encoder and an interleaver” ‘4473 Patent, Claim 1</p> <p>“receiving, by the transceiver, at least one message using a forward error correction decoder and without using a deinterleaver” ‘4473 Patent, Claim 1</p> <p>“[transmitting/transmit/receiving/receive] a [packet/message] using forward error correction [encoding/decoding] and [without using] [interleaving/deinterleaving]” ‘809 Patent, Claim 8</p> <p>“[retransmit/retransmitting] the packet using [the] forward error correction [encoder/encoding] and [the interleaver/interleaving]” ‘348 Patent, Claim 3 ‘4473 Patent, Claim 3 ‘809 Patent, Claims 3, 17</p> <p>“[receive/receiving] a retransmitted packet using [the] forward error correction [decoder/decoding] and [the deinterleaver/deinterleaving]” ‘348 Patent, Claim 11 ‘809 Patent, Claim 10</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning. No construction necessary.	Indefinite

(Dkt. No. 107, Ex. A, at 98–107; *id.*, Ex. B, at 16; Dkt. No. 124, at 25 n.21; Dkt. No. 146, App’x A, at 10; Dkt. No. 149, App’x A, at 67; Dkt. No. 149, App’x A, at 67–69.)

The following terms do not appear in the parties' P.R. 4-5(d) Joint Claim Construction Chart (*see* Dkt. No. 149, App'x A): "[transmit/retransmit] at least one packet using interleaving" ('577 Patent, Claims 37, 38, 53, 54); "transmitting, by the transceiver, a packet using a forward error correction encoder and an interleaver" ('4473 Patent, Claim 1); "receiving, by the transceiver, at least one message using a forward error correction decoder and without using a

deinterleaver” (’4473 Patent, Claim 1); “[retransmit/retransmitting] the packet using [the] forward error correction [encoder/encoding] and [the interleaver/interleaving]” (’348 Patent, Claim 3; ’4473 Patent, Claim 3; ’809 Patent, Claims 3, 17); and “[receive/receiving] a retransmitted packet using [the] forward error correction [decoder/decoding] and [the deinterleaver/deinterleaving]” (’348 Patent, Claim 11; ’809 Patent, Claim 10). The analysis set forth herein therefore does not address these terms.

(a) The Parties' Positions

Plaintiff argues that “[t]he plain language of the claims shows that interleaving and encoding functionality is part of the transmitter portion and that deinterleaving and decoding functionality is part of the receiving portion,” and “[t]he specification matches the claims.” (Dkt. No. 124, at 26.)

Defendants respond that these terms are not reasonably clear “because interleaving and deinterleaving functionalities do not actually transmit or receive data; rather, the transmitter transmits and the receiver receives data using hardware components, such as digital-to-analog or analog-to-digital converters, amplifiers, and antennas.” (Dkt. No. 135, at 25.) For example, Defendants submit: “Prior to being transmitted, data can be interleaved by an interleaver to spread out the symbols of each codeword. The data, however, is not transmitted using the interleaver functionality.” (*Id.*) Defendants argue that “[t]h[e] claims and specification excerpts [cited by Plaintiff] merely repeat the illogical proposition of transmitting/receiving using an interleaver/deinterleaver, which, as discussed above, does not sufficiently inform a POSITA about the scope of the term.” (*Id.*, at 26.)

Plaintiff replies that Defendants’ indefiniteness challenge lacks merit because “[i]t is undisputed that the Patents disclose that the transmitter performs interleaving and coding and,

conversely, the receiver performs deinterleaving and decoding.” (Dkt. No. 140, at 9 (citing ’348 Patent at 9:41–49).)

(b) Analysis

The claims here at issue involve transmitters and receivers, and the specification discloses for example:

[W]hile some of the exemplary embodiments described herein are directed toward a transmitter portion of a transceiver performing interleaving and/or coding on transmitted information, it should be appreciated that a corresponding deinterleaving and/or decoding is performed by a receiving portion of a transceiver. Thus, while perhaps not specifically illustrated in every example, this disclosure is intended to include this corresponding functionality in both the same transceiver and/or another transceiver.

’348 Patent at 9:41–49.

Claim 1 of the ’348 Patent, for example, recites (emphasis added):

1. An apparatus comprising:
 - a multicarrier transceiver including a processor and memory operable to:
 - transmit a packet using a forward error correction encoder and an interleaver, wherein the packet comprises a header field and a plurality of PTM-TC codewords, a plurality of ATM cells or a plurality of Reed-Solomon codewords, and wherein the header field comprises a sequence identifier (SID); and
 - receive a plurality of messages using a forward error correction decoder and without using a deinterleaver*, wherein each message of the plurality of messages is received in a different DMT symbol and wherein at least one message of the plurality of messages includes an acknowledgement (ACK) or a negative acknowledgement (NACK) of the transmitted packet.

* * *

3. The apparatus of claim 1, wherein the transceiver is operable to retransmit the packet using the forward error correction encoder and the interleaver.

These claims expressly recite a “transceiver” that transmits and receives, and the recitals of using or not using an “interleaver” or a “deinterleaver” do not give rise to any lack of reasonable certainty regarding the scope of these claims. The other claims here at issue are

similar in this regard. Defendants argue that these claims are unclear because “interleaving and deinterleaving functionalities do not actually transmit or receive data.” (Dkt. No. 135, at 25.) For example, Defendants argue that interleaving occurs *before* transmitting. Plaintiff’s expert persuasively opines, however, that “[t]hese terms quite simply specify that functionality of a transceiver (transmitting, for example) is performed using a specified sub-function or sub-element of the transceiver (interleaving, for example).” (Dkt. No. 124, Ex. 12, Mar. 15, 2022 Cooklev Decl., at ¶¶ 146.) To whatever extent the opinions set forth in the declaration of Defendants’ expert can be read as stating otherwise, those opinions of Defendants’ expert are unpersuasive. (See Dkt. No. 135, Ex. 25, Mar. 14, 2022 Wesel Decl., at ¶¶ 50–56.)

The Court therefore hereby expressly rejects Defendants’ indefiniteness arguments as to these disputed terms, and Defendants present no alternative proposed constructions.

The Court accordingly hereby construes these disputed terms to have their **plain meaning**.

XI. DISPUTED TERMS IN THE “FAMILY 10” PATENTS

Plaintiff submits that “the Family 10 Patents generally relate to assigning different signal-to-noise (‘SNR’) margins to different carriers to address the tradeoff between channel robustness and the available data rate.” (Dkt. No. 124, at 1 (citation omitted).)

The ’354 Patent, titled “Systems and Methods for a Multicarrier Modulation System with a Variable Margin,” issued on October 6, 2015, and bears an earliest priority date of April 18, 2000. The Abstract of the ’354 Patent states:

A multicarrier modem has a plurality of carriers over which data is transmitted. By assigning, for example, one or more different margins to the individual carriers the data rate and impairment immunity can be increased.

33. “a multicarrier communications transceiver operable to: receive a multicarrier symbol comprising a first plurality of carriers”

<p align="center">“a multicarrier communications transceiver operable to: receive a multicarrier symbol comprising a first plurality of carriers” ’354 Patent, Claim 10</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning. No construction necessary.	Indefinite

(Dkt. No. 107, Ex. A, at 108; *id.*, Ex. B, at 17; Dkt. No. 146, App’x A, at 10–11; Dkt. No. 149, App’x A, at 70.)

(a) The Parties' Positions

Plaintiff argues that “[t]he specification teaches how multicarrier modulation is used to transmit bits using multiple carriers,” and “[o]ne of ordinary skill would have understood that [*sic*] a multicarrier symbol that comprises a first plurality of carriers to refer to that multicarrier signal, viewed as the collection of bit st[r]eams from a digital perspective (e.g., the collection of bits on each carrier).” (Dkt. No. 124, at 27 (citations omitted).)

Defendants respond: “A multicarrier symbol in the context of a discrete multitone modulation system is the sum of the full collection of carriers modulated by the system. The intrinsic record of the ’354 Patent fails to inform a POSITA how a multicarrier symbol is subdivided into different subsets of carriers.” (Dkt. No. 135, at 27–28 (citation and internal quotation marks omitted).)

Plaintiff replies that Defendants’ argument “is not a definiteness argument (which is about understanding the scope of the claims); it is an incorrect written description or enablement argument.” (Dkt. No. 140, at 10.)

(b) Analysis

Claim 10 of the '354 Patent (as corrected by two Certificates of Correction, *see* Dkt. No. 124, Ex. 10, at pp. 11–12 of 12) recites (emphasis added):

10. *A multicarrier communications transceiver operable to:*
 receive a multicarrier symbol comprising a first plurality of carriers and a
 second plurality of carriers;
 receive a first plurality of bits on the first plurality of carriers using a first
 SNR margin;
 receive a second plurality of bits on the second plurality of carriers using a
 second SNR margin;
 wherein the first plurality of carriers is different than the second plurality
 of carriers,
 wherein the first SNR margin is different than the second SNR margin,
 and
 wherein the first SNR margin provides more robust reception than the
 second SNR margin.

Defendants argue that “[t]he intrinsic record of the '354 Patent fails to inform a POSITA how a multicarrier symbol is subdivided into different subsets of carriers.” (Dkt. No. 135, at 28.)

Plaintiff’s expert opines that a “multicarrier symbol” is conveyed by a multicarrier signal, which can be “viewed as the collection of bit st[r]eams from a digital perspective (*e.g.*, the collection of bits on each carrier).” (Dkt. No. 124, Ex. 12, Mar. 15, 2022 Cooklev Decl., at ¶ 151.)

The specification supports this understanding by disclosing that carriers are used “collectively” to convey data:

Multicarrier modulation, or Discrete Multitone Modulation (DMT), is a transmission method that is widely used for communication over difficult media. Multicarrier modulation divides the transmission frequency band into multiple subchannels, i.e., carriers or bins, with each carrier individually modulating a bit or a collection of bits. A transmitter modulates an input data stream containing information bits with one or more carriers, i.e., bins or subchannels, and transmits the modulated information. A receiver demodulates all the carriers in order to recover the transmitted information bits as an output data stream.

* * *

Individually, the carriers form discrete, non-overlapping communication subchannels which are of a limited bandwidth. Collectively, the carriers form what is effectively a broadband communications channel. At the receiver end, the carriers are demodulated and the data recovered.

³⁵⁴ Patent at 1:32–43 & 3:8–13; *see also id.* at Abstract (“A multicarrier modem has a plurality of carriers over which data is transmitted.”).

This understanding is also consistent with the context in which the disputed term appears in the claim (reproduced above), wherein a “multicarrier symbol” conveys “a first plurality of bits on the first plurality of carriers” and “a second plurality of bits on the second plurality of carriers.” Thus, “multicarrier symbol” can be understood as conveying bits by using multiple carriers. This is by no means the only requirement set forth by the claim, but the Court rejects Defendants’ argument that this requirement is not reasonably clear in the context of the claim and the specification.

The opinions of Defendants' expert are likewise unpersuasive. (*See* Dkt. No. 135, Ex. 24, Mar. 14, 2022 Zimmerman Decl. at ¶¶ 83–86.) Defendants' expert opines:

The specification of the '354 Patent does not disclose or define a “multicarrier symbol.” The specification shows that the alleged invention relates to a discrete multitone modulation system. *See, e.g.*, '354 Patent at 1:30–2:45, 4:14–16 (“In an exemplary embodiment of the invention, the margin is set to be different on at least two subchannels in a discrete multitone modulation system.”). Therefore, in this context, a person of ordinary skill in the art would understand a “multicarrier symbol” to refer to a symbol used in a discrete multitone modulation system, which is the sum of the full collection of carriers modulated by the system. It is unclear to a person of ordinary skill in the art how a multicarrier symbol is subdivided into a first and a second plurality of carriers. Furthermore, it is unclear to a person of ordinary skill in the art how a multicarrier symbol could comprise a subset of carriers from the full collection such that there could be a first plurality of carriers and a second plurality of carriers.

(*Id.* at ¶ 84.) Defendants’ expert thus agrees that “a person of ordinary skill in the art would understand a ‘multicarrier symbol’ to refer to a symbol used in a discrete multitone modulation

system, which is the sum of the full collection of carriers modulated by the system.” (*Id.*) The opinions that “[i]t is unclear to a person of ordinary skill in the art how a multicarrier symbol is subdivided into a first and a second plurality of carriers” and “it is unclear to a person of ordinary skill in the art how a multicarrier symbol could comprise a subset of carriers from the full collection such that there could be a first plurality of carriers and a second plurality of carriers” (*id.*) do not demonstrate indefiniteness but rather perhaps may bear upon enablement or written description requirements, which are not at issue in the present claim construction proceedings. *See Phillips*, 415 F.3d at 1327 (“we have certainly not endorsed a regime in which validity analysis is a regular component of claim construction”) (citation omitted).

The Court therefore hereby expressly rejects Defendants’ indefiniteness argument as to this disputed term. Defendants present no alternative proposed construction, and no further construction is necessary.

The Court accordingly hereby construes “**a multicarrier communications transceiver operable to: receive a multicarrier symbol comprising a first plurality of carriers**” to have its **plain meaning**.

34. “receive a first plurality of bits on the first plurality of carriers using a first SNR margin; receive a second plurality of bits on the second plurality of carriers using a second SNR margin”

<p>“receive a first plurality of bits on the first plurality of carriers using a first SNR margin; receive a second plurality of bits on the second plurality of carriers using a second SNR margin”</p> <p>’354 Patent, Claim 10</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning. No construction necessary.	Indefinite

(Dkt. No. 107, Ex. A, at 108; *id.*, Ex. B, at 17; Dkt. No. 146, App’x A, at 11; Dkt. No. 149, App’x A, at 71.)

(a) The Parties’ Positions

Plaintiff argues that “[t]he Patent explains that the SNR margin is used to determine the number of bits to allocate to each carrier,” “[t]he margin is set on each carrier,” and “[t]hus, receiving bits on carriers ‘using a [first/second] SNR margin’ is reasonably understood to mean that the claimed multicarrier transceiver is operable to receive bits on a carriers [*sic*] where an SNR margin is used for performing bit loading on the carriers.” (Dkt. No. 124, at 28 (citations omitted).)

Defendants respond that “the language of claim 10 of the ’354 Patent is directed to receiving information bits,” and “[b]y contrast, bit loading is performed with the *transmitter* portion of the transceiver—not the receiver portion.” (Dkt. No. 135, at 28 (emphasis added).) “Therefore,” Defendants argue, “it is unclear to a POSITA how the transceiver is operable to *receive* a [first/second] plurality of bits *using* an SNR margin.” (*Id.*) Further, Defendants argue, “assigning different SNR margins, as described in the ’354 Patent specification and discussed in TQ Delta’s opening brief, fails to describe *how* the SNR Margin is used to ‘receive’ a [first/second] plurality of bits.” (*Id.*, at 28–29 (citations omitted).)

Plaintiff replies that “the Patents explain that . . . the language refers to receiving bits on carriers where an SNR margin was used to perform bit loading . . .” (Dkt. No. 140, at 10 (citing Dkt. No. 124, at 28–29).) Plaintiff argues that Defendants’ argument “is a misplaced written description or enablement argument, not a definiteness challenge.” (*Id.*)

(b) Analysis

Claim 10 of the '354 Patent (as corrected by two Certificates of Correction, *see* Dkt. No. 124, Ex. 10, at pp. 11–12 of 12) recites (emphasis added):

10. A multicarrier communications transceiver operable to:

- receive a multicarrier symbol comprising a first plurality of carriers and a second plurality of carriers;
- receive a first plurality of bits on the first plurality of carriers using a first SNR margin;*
- receive a second plurality of bits on the second plurality of carriers using a second SNR margin;*
- wherein the first plurality of carriers is different than the second plurality of carriers,
- wherein the first SNR margin is different than the second SNR margin,
- and
- wherein the first SNR margin provides more robust reception than the second SNR margin.

Defendants argue that this disputed term is unclear because whereas these claim limitations are directed to *receiving* a communication, “using” an SNR margin occurs when *transmitting*. Defendants’ expert opines:

During initialization of the discrete multitone modulation system, the signal-to-noise ratios of each subchannel is calculated by the system by sending signals between the transmitter and receiver. Then, the system calculates the number of bits that can be transmitted on each subchannel, in part, by using the calculated signal-to-noise ratios of each subchannel. A person of ordinary skill in the art would not understand how the transmitter could “receive a [first/second] plurality of bits . . . using a [first/second] SNR margin” when the SNR margin is used by the transmitter during initialization to determine the number of bits to transmit on each subchannel. Nor could a person of ordinary skill in the art understand how the SNR margin, as assigned to the plurality of carriers, is used to “receive a [first/second] plurality of bits.” Based on the ’354 Patent specification, a person of skill in the art would understand that the SNR margin is assigned to the plurality of carriers based on impairments of or on a carrier, such as insertion loss of the wire or medium itself, or based on a known impairment on a carrier. *See* ’354 Patent at 2:14–19; 5:3–6; 7:29–36. Accordingly, the SNR margin is not used to receive a plurality of bits.

(See Dkt. No. 135, Ex. 24, Mar. 14, 2022 Zimmerman Decl. at ¶ 89.)

A fair reading of the claim language, however, is that the “receive . . .” limitations refer to receiving a transmission *from* a transmitter that is operable to transmit, for example, a first plurality of bits on the first plurality of carriers using a first SNR margin. This understanding is consistent with disclosures in the specification, such as disclosure regarding signal-to-noise ratio (“SNR”) margins specifying an amount of “extra” SNR for a transmission:

Discrete multitone modulation transceivers modulate a number of bits on each subchannel, the number of bits depending on the Signal to Noise Ratio (SNR) of that sub channel and the Bit Error Rate (BER) requirement of a link. For example, if the required BER is 1×10^{-7} , i.e., one bit in ten million is received in error on average, and the SNR of a particular subchannel is 21.5 dB, then that subchannel can modulate 4 bits, since 21.5 dB is the required SNR to transmit 4 QAM bits with a 1×10^{-7} BER. Other subchannels can have a different SNR and therefore may have a different number of bits allocated to them at the same BER. Additional information regarding bit loading can be found in copending U.S. application Ser. No. 09/510,773, incorporated herein by reference in its entirety.

In many DMT systems, an additional parameter is used to determine the number of bits allocated to each subchannel. This parameter is called the “[“]SNR [“]margin,” or simply the “margin.” The margin specifies an extra SNR per subchannel, in addition to what is required to maintain the specified BER requirement. As an example, a DMT system with a 6 dB margin would require a $21.5+6=27.5$ dB SNR on a subchannel in order to transmit 4 bits on that subchannel with a 1×10^{-7} BER. This is 6 dB more than required by the example in the previous paragraph because now a 6 dB margin is added to the system. Another way of looking at this is that in the example of the previous paragraph, where 4 bits were allocated to a subchannel with 21.5 dB SNR, the margin was 0 dB.

* * *

In an exemplary embodiment of the invention, the margin is set to be different on at least two subchannels in a discrete multitone modulation system. In this exemplary embodiment, subchannels which are expected to incur greater variations in impairment levels are set to have a higher margin, whereas subchannels which are expected to incur lower variations in impairment levels are set to have lower margins.

'354 Patent at 1:57–2:17 & 4:14–20.

Particularly when reading the claim language in light of this disclosure in the specification, the limitation of “receive a first plurality of bits on the first plurality of carriers using a first SNR margin,” for example, is readily understood not as referring to using the SNR margin to receive the bits, as Defendants suggest, but rather as referring to receiving carriers that were transmitted using a particular SNR margin.

The Court therefore hereby expressly rejects Defendants' indefiniteness argument as to this disputed term, and Defendants present no alternative proposed construction.

The Court accordingly hereby construes “**receive a first plurality of bits on the first plurality of carriers using a first SNR margin; receive a second plurality of bits on the second plurality of carriers using a second SNR margin**” to have its **plain meaning**.

35. “wherein the first SNR margin provides more robust reception than the second SNR margin”

<p align="center">“wherein the first SNR margin provides more robust reception than the second SNR margin” ’354 Patent, Claim 10</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning. No construction necessary.	Indefinite

(Dkt. No. 107, Ex. A, at 109; *id.*, Ex. B, at 17; Dkt. No. 146, App’x A, at 11; Dkt. No. 149, App’x A, at 72.)

(a) The Parties' Positions

Plaintiff argues that “[t]he Patent describes ‘robustness’ in the context of the SNR margin for a channel as allowing the system to maintain a required bit error rate,” and “[t]hus, one of ordinary skill would have understood that the first signal-to-noise (‘SNR’) margin provides more

robust reception than the second SNR margin by, for example, reducing the bit error rate (e.g., making it less likely that a transmission would be subject to significant errors, which makes the reception more ‘robust,’ e.g., less likely to require error correction or retransmission).” (Dkt. No. 124, at 29 (citations omitted).)

Defendants respond: “TQ Delta and its own expert acknowledge that the ’354 Patent specification describes robustness only as a measurement of the overall system. Not only does the specification fail to describe *how* an SNR margin (at the carrier level) provides more robust reception at the system level, but it also fails to describe how the SNR Margin, as opposed to other known factors, *provides* more robust reception.” (Dkt. No. 135, at 29 (citations omitted).)

Plaintiff replies that “robustness refers to maintaining a required bit-error rate.” (Dkt. No. 140, at 10 (citing Dkt. No. 124, at 28–29).) Plaintiff argues that Defendants’ argument “is a misplaced written description or enablement argument, not a definiteness challenge.” (*Id.*)

(b) Analysis

Claim 10 of the '354 Patent (as corrected by two Certificates of Correction, *see* Dkt. No. 124, Ex. 10, at pp. 11–12 of 12) recites (emphasis added):

10. A multicarrier communications transceiver operable to:
- receive a multicarrier symbol comprising a first plurality of carriers and a second plurality of carriers;
 - receive a first plurality of bits on the first plurality of carriers using a first SNR margin;
 - receive a second plurality of bits on the second plurality of carriers using a second SNR margin;
 - wherein the first plurality of carriers is different than the second plurality of carriers,
 - wherein the first SNR margin is different than the second SNR margin,
 - and
 - wherein the first SNR margin provides more robust reception than the second SNR margin.*

Defendants’ expert opines that this disputed term is unclear because “[t]he specification refers to robustness as a tradeoff with data rate for the whole system, not individual carriers.” (Dkt. No. 135, Ex. 24, Mar. 14, 2022 Zimmerman Decl. at ¶ 93 (citing ’354 Patent at 2:17–33 (reproduced below)).) “Moreover,” Defendants’ expert opines, “‘robustness’ of a signal can be measured in a number of different ways,” and “[t]he specification lists some of these as advantages of multicarrier modulation, for example, ‘a higher immunity to impulse noise, a lower complexity equalization requirement in the presence of multipath, a higher immunity to narrow band interference, a higher data rate and bandwidth flexibility.’” (*Id.*, at ¶ 94 (citing ’354 Patent at 1:45–49).)

The specification provides context for the recital of “robust” by disclosing:

DMT transceivers use a margin to increase the system’s immunity to various types of time varying impairments. Examples of these impairments in DSL systems are: changes in the levels of crosstalk from other transmission systems, impulse noise, temperature changes in the telephone line, or the like. When a DMT system is operating with a positive SNR margin, the noise can change instantaneously by the level of the margin and the system will still maintain the required BER. For example, if the system is operating at a 6 dB margin, e.g., 4 bits are allocated to carriers with 27.5 dB SNR for $BER=1 \times 10^{-7}$, the crosstalk levels can increase by 6 dB and the system will still be operating at the required 1×10^{-7} BER. Obviously the penalty for this *increase in robustness* is a decrease in the data rate, since with a 0 dB margin, a subchannel with 27.5 dB SNR can modulate 6 bits at 1×10^{-7} BER.

Therefore, there is a tradeoff between the *robustness* of the channel. Such as a phone line, and the achievable data rate. The margin can be used to quantify this tradeoff. A *higher margin* results in a higher level of immunity to changing channel conditions at the expense of the achievable data rate. Likewise, a lower margin results in a higher data rate at the expense of a lower immunity to changing channel conditions.

’354 Patent at 2:18–40 (emphasis added); *see id.* at 3:34–51 (similar).

This disclosure regarding using increased SNR to achieve an “increase in robustness” provides context for understanding that “the first SNR margin provides more robust reception

than the second SNR margin” by the first SNR margin being greater in magnitude than the second SNR margin. *See id.* at 2:18–40. Although perhaps this is not the only way to increase “robustness,” the claim here at issue expressly refers to using SNR margin, and the specification explains that a greater SNR margin provides increased robustness. *See id.*

The Court therefore hereby construes “**wherein the first SNR margin provides more robust reception than the second SNR margin**” to mean “**wherein the first SNR margin is greater than the second SNR margin.**”

36. “signal to noise ratio (SNR) margin” and “SNR margin”

<p align="center">“signal to noise ratio (SNR) margin” “SNR margin” ’988 Patent, Claim 16 ’354 Patent, Claim 10</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
Plain and ordinary meaning. No construction necessary.	“a parameter used in determining the number of bits allocated to each of a plurality of carriers, where the value of the parameter specifies an extra SNR requirement assigned per carrier in addition to the SNR required to maintain a specified bit error rate (BER) for the communication link at a specified bit allocation”

(Dkt. No. 107, Ex. A, at 110; *id.*, Ex. B, at 18; Dkt. No. 146, App’x A, at 11; Dkt. No. 149, App’x A, at 73.)

(a) The Parties' Positions

Plaintiff argues that “SNR margin is an established term to those of skill in the art, referencing ‘an additional parameter’ in multicarrier systems that is ‘used to determine the number of bits allocated to each subchannel.’” (Dkt. No. 124, at 30 (quoting ’354 Patent at 2:4–

5).) Plaintiff also urges that “[w]hile [in prior litigation] TQ Delta agreed to the same construction proposed by Defendants’ here,” “TQ Delta submits that Defendants’ proposed construction is unlikely to assist the jury to resolve any fact issues any more than the simpler term ‘SNR margin’ (which, again, is an established term in the multicarrier communications art).” (*Id.* (citation omitted).)

Defendants respond that “Defendants’ proposal finds direct support in the shared specification of the ’354 and ’988 Patents (*see* ’354 Patent at 2:4–9), and TQ Delta previously agreed to the same construction in the ADTRAN Case.” (Dkt. No. 135, at 30 (citation omitted).)

Plaintiff replies: “Defendants fail to identify any claim-scope issue. There is no need to construe this term.” (Dkt. No. 140, at 10.)

(b) Analysis

Defendants propose a construction that Plaintiff agreed to in the District of Delaware as to United States Patent No. 8,625,660 (“the ’660 Patent”), which is a “grandparent” of the ’354 Patent. Specifically, the ’354 Patent resulted from a continuation of a continuation of the ’660 Patent. The District of Delaware adopted an agreement reached between the parties in that case to construe “signal to noise ratio (SNR) margin” to mean “a parameter used in determining the number of bits allocated to each of a plurality of carriers, where the value of the parameter specifies an extra SNR requirement assigned per carrier in addition to the SNR required to maintain a specified bit error rate (BER) for the communication link at a specified bit allocation.” *TQ Delta, LLC v. ADTRAN, Inc.*, No. 1:14-CV-00954-RGA, Dkt. No. 375, slip op. at 5 (D. Del. Apr. 27, 2018).

This construction that was agreed upon as to the related '660 Patent in the District of Delaware is consistent with disclosure in the specification:

In many DMT [(Discrete Multitone Modulation)] systems, an additional parameter is used to determine the number of bits allocated to each subchannel. This parameter is called the SNR “margin,” or simply the “margin.” The margin specifies an extra SNR per subchannel, in addition to what is required to maintain the specified BER [(Bit Error Rate)] requirement.

'354 Patent at 2:4–9. The construction agreed upon in the District of Delaware is supported by this disclosure, and “some construction of the disputed claim language will assist the jury to understand the claims.” *TQP Dev., LLC v. Merrill Lynch & Co.*, No. 2:08-CV-471, 2012 WL 1940849, at *2 (E.D. Tex. May 29, 2012) (Bryson, J., sitting by designation).

Finally, Plaintiff does not substantively oppose Defendants’ proposal of the construction that Plaintiff agreed upon in the District of Delaware as to the related ’660 Patent. Instead, Plaintiff states that “SNR margin is an established term to those of skill in the art, referencing ‘an additional parameter’ in multicarrier systems that is ‘used to determine the number of bits allocated to each subchannel,’ and “[i]t is unclear if there is a claim-scope dispute between the parties for these terms.” (Dkt. No. 124, at 30 (quoting ’354 Patent at 2:4–9).)

The Court therefore adopts the construction agreed upon in the District of Delaware. This comports with the general principle that “[w]here multiple patents ‘derive from the same parent application and share many common terms, we must interpret the claims consistently across all asserted patents.’” *SightSound Techs., LLC v. Apple Inc.*, 809 F.3d 1307, 1316 (Fed. Cir. 2015) (quoting *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1293 (Fed. Cir. 2005), and applying the same construction for a claim term appearing in the claims of multiple related patents). Also, the claims at issue in the present case, like the claims at issue in the construction by the District of Delaware in a related patent, use SNR margin in the context of pluralities of bits and pluralities of carriers. *See* ’988 Patent, Cl. 16; *see also* ’354 Patent, Cl. 10. Because this

Court adopts the Delaware construction, the Court need not reach Defendants' argument that Plaintiff is estopped from proposing a different construction.

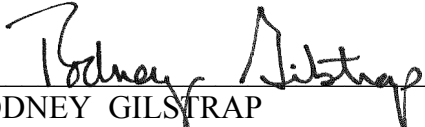
The Court accordingly hereby construes **“Signal to Noise Ratio (SNR) margin”** to mean **“a parameter used in determining the number of bits allocated to each of a plurality of carriers, where the value of the parameter specifies an extra SNR requirement assigned per carrier in addition to the SNR required to maintain a specified bit error rate (BER) for the communication link at a specified bit allocation.”**

XII. CONCLUSION

The Court adopts the constructions set forth in this opinion for the disputed terms of the patents-in-suit.

The parties are ordered that they may not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

So ORDERED and SIGNED this 8th day of June, 2022.



RODNEY GILSTRAP
UNITED STATES DISTRICT JUDGE

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

TQ DELTA, LLC,

Plaintiff,

V.

COMMSCOPE HOLDING COMPANY, INC., COMMSCOPE INC., ARRIS INTERNATIONAL LIMITED, ARRIS GLOBAL LTD., ARRIS US HOLDINGS, INC., ARRIS SOLUTIONS, INC., ARRIS TECHNOLOGY, INC., and ARRIS ENTERPRISES, LLC,

Defendants.

CIVIL ACTION NO. 2:21-CV-00310-JRG

ORDER ON PRETRIAL MOTIONS AND MOTIONS *IN LIMINE*

The Court held a Pretrial Conference in the above-captioned case on Wednesday, March 1, 2023 (Dkt. No. 482), and Thursday, March 2, 2023 (Dkt. No. 486), regarding pending pretrial motions and motions *in limine* (“MILs”) filed by Plaintiff TQ Delta, LLC (“TQ Delta”) and Defendants CommScope Holding Company, Inc., CommScope Inc., ARRIS International Limited, ARRIS Global Ltd., ARRIS US Holdings, Inc., ARRIS Solutions, Inc., ARRIS Technology, Inc., and ARRIS Enterprises, LLC (collectively, “CommScope”). (See Dkt. Nos. 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 349, 451, 452). This Order memorializes the Court’s rulings on the pretrial motions, MILs, and disputed exhibits as announced from the bench into the record, including additional instructions that were given to the parties and certain agreements and stipulations reached by the parties as announced into the record. Although this Order summarizes the Court’s rulings as announced into the record during the Pretrial Conference, this Order in no

way limits or constrains such rulings from the bench as reflected in the record. Accordingly, it is hereby **ORDERED** as follows:

PRETRIAL MOTIONS

1. TQ Delta’s Motion for Summary Judgment of No Breach of Any FRAND Obligations (Family 3 and Family 9A Non-Essential Patents) (Dkt. No. 335)

The motion was **GRANTED**. (Dkt. No. 493 at 263:14–264:4). The Court concluded, and the parties did not dispute, that U.S. Patent Nos. 7,844,882 (the “’882 Patent”) and 8,276,048 (the “’048 Patent”) of Patent Family 3 as well as U.S. Patent No. 8,468,411 (the “’411 Patent”) of Patent Family 9a are not standard essential patents.

2. CommScope’s Motion for Summary Judgment of Non-Infringement of the Family 3 Patents (Dkt. No. 336)

The motion was **DENIED**. (Dkt. No. 493 at 156:7–12). The Court found that there remains a triable question of fact that precludes the grant of summary judgment under Federal Rule of Civil Procedure 56.

3. TQ Delta’s Motion to Strike the Expert Testimony of Dr. George A. Zimmerman, Dr. Richard Wesel, Dr. Bruce McNair, and Dr. Niel Ransom (Dkt. No. 337)

The motion was **DENIED**. (Dkt. No. 493 at 218:7–221:12). As to the first issue regarding background information, the Court held that CommScope is entitled during trial to show during trial what the background of the prior art and what would be understood by a person of ordinary skill in the art. (*Id.* at 218:7–219:20). However, such use is for background purposes and not as a backdoor effort for CommScope to establish that every element of the asserted claim is set forth within the elected prior art. (*Id.*). With regard to issue two, the parties conceded that the written description portion of the motion is no longer in dispute. (*Id.* at 219:20–22). For issue three, the Court observed that it does not expect Drs. Vijay Madiseti or Niel Ransom to testify contrary to

the Court’s claim construction and that any contrary effort can be addressed in real time with an appropriate objection. (*Id.* at 219:23–221:12).

4. TQ Delta’s Motion to Strike the Invalidity Report of Defendants’ Expert, Mark Lanning (Dkt. No. 338)

The motion was **GRANTED-IN-PART and DENIED-IN-PART**. (Dkt. No. 493 at 178:10–179:7). The Court **GRANTED** the motion as to striking paragraphs 23 and 1068 of Mr. Mark Lanning’s opening expert report given that reference to the TNETD8000 User Guide related only to a patent that has been dropped from the case. The Court further struck all portions of Mr. Lanning’s report that rely on or present any opinion related to the Peeters or Cai references in light of CommScope’s representation that such portions of his opinion have been withdrawn. The Court found that Mr. Lanning’s report did not contradict or fail to apply the Court’s construction of SNR margin and **DENIED** the motion as to that issue.

5. TQ Delta’s Motion to Strike Portions of the Non-infringement Report and Opinions of Defendants’ Expert, Dr. Leonard J. Cimini, Jr. (Dkt. No. 339)

The motion was **GRANTED**. (Dkt. No. 494 at 4:4–5:12). The Court struck paragraphs 80 through 87 of Dr. Cimini’s responsive expert report. The Court concluded that Dr. Cimini applied three different constructions or understandings of the claim term “transmit from the transceiver a diagnostic message using multicarrier modulation with DMT symbols that are mapped to one bit of the diagnostic message,” and noted that any expert, including Dr. Cimini, must use the same theories and positions for both infringement and invalidity, which here, Dr. Cimini failed to do.

6. CommScope’s Motion for Partial Summary Judgment to Limit Damages Based on 35 U.S.C. § 286 (Dkt. No. 340)

The motion was **DENIED**. (Dkt. No. 493 at 66:5–8). The Court concluded that there are questions of material fact that preclude the entry of summary judgment.

7. TQ Delta’s Motion to Strike Portions of the Non-infringement Report and Opinions of Defendants’ Expert, Dr. Naofal Al-Dhahir (Dkt. No. 341)

The motion was **GRANTED**. (Dkt. No. 493 at 235:9–236:14). The Court struck paragraphs 209 through 214 of Dr. Naofal Al-Dhahir’s responsive expert report and found that CommScope failed to timely and properly disclose non-infringing alternatives during the discovery period in response to an appropriate interrogatory request.

8. CommScope’s Motion to Exclude Certain Unreliable Opinions of Plaintiff’s Expert Dr. Vijay Madiseti (Dkt. No. 342)

The motion was **GRANTED-IN-PART and DENIED-IN-PART**. (Dkt. No. 493 at 196:15–197:4). The Court struck paragraphs 69 through 72 of Dr. Madiseti’s rebuttal expert report because they conflicted with the Court’s claim construction. However, the Court declined to strike paragraph 73 but instructed TQ Delta that Dr. Madiseti is prohibited from providing any opinion contrary to the Court’s claim constructions and that he and all expert witnesses must stay within the four corners of their reports.

9. CommScope’s Motion for Partial Summary Judgment Regarding Prior Art Status (Dkt. No. 343)

The motion was **GRANTED**. (Dkt. No. 494 at 213:23–214:1). In light of TQ Delta’s prior admissions in the District of Delaware, this Court found that the G.993.1, LB-031, G.992.1, and SC-060 references are prior art pursuant to 35 U.S.C. § 102(a) (pre-AIA).

10. CommScope’s Motion to Exclude Portions of the Expert Testimony of Jonathan Putnam and Todor Cooklev Under Fed. R. Evid. 702 and Daubert (Dkt. No. 344)

The motion was **DENIED**. (Dkt. No. 493 at 106:6–12). The Court found that robust cross-examination is adequate to address the issues raised by CommScope and that exclusion is not justified.

11. TQ Delta’s Motion to Strike Portions of the Expert Report of Stephen L. Becker, Ph.D. (Dkt. No. 345)

The motion was **GRANTED-IN-PART and DENIED-IN-PART**. (Dkt. No. 493 at 141:16–142:23). The Court **DENIED** the motion as to the smallest saleable patent practicing unit (SSPPU) and concluded that Dr. Becker sufficiently relied on technical experts’ opinions to adequately discern the SSPPU in his expert report. The Court **GRANTED** the motion with regard to using the Sisvel Agreements and Rate Card as an independent check on his ultimate opinions and struck paragraphs 199 through 205, 233, 315 through 317 and Exhibit 12 of Dr. Becker’s expert report.

12. CommScope’s Motion to Exclude Expert Testimony of Jonathan Putnam, Ph.D. that Is Inconsistent with Legal Precedent (Dkt. No. 346)

The motion was **GRANTED-IN-PART and DENIED-IN-PART**. (Dkt. No. 493 at 97:22–100:5). During argument, the Court identified five distinct subparts of this motion. For issue one, the Court **DENIED** the motion and held that in light of paragraph 378 of Dr. Putnam’s expert report, he has limited his opinion to a subset of standard essential patent families within the entire DSL standard. (*Id.* at 98:2–8). For issue two, the Court **DENIED** the motion and held that the SSPPU is not the only possible metric in calculating apportionment. (*Id.* at 98:9–13). With regard to issue three, the motion was **GRANTED-IN-PART**, and the Court precluded Dr. Putnam from using the Nash Bargaining Theory in his testimony; however, it noted that he is not precluded from presenting other information that supports the same conclusion or reaches the same result. (*Id.* at 98:14–99:6). As to issue four and Dr. Putnam’s opinion on the hypothetical negotiation date, the Court **DENIED** the motion. (*Id.* at 99:7–14). As to issue five, the Court **DENIED** the motion and concluded that it is appropriate to discount the value of comparable license agreements to account for the uncertainty of questions as to validity or infringement. (*Id.* at 99:15–22).

13. TQ Delta's Motions for Summary Judgment Directed to Patent Families 1 and 10 (Dkt. No. 347)

The was motion was **DENIED**. (Dkt. No. 494 at 214:2–5). During oral argument, TQ Delta identified three sub-parts of its motion. For issue three, as to no invalidity of Patent Family 10, TQ Delta conceded that it could not succeed on the merits based on the Court's ruling on TQ Delta's Motion to Strike the Invalidity Report of Defendants' Expert, Mark Lanning (Dkt. No. 338). (Dkt. No. 494 at 204:3–8). Regarding issues one and two, the Court **DENIED** the motion and found that there are outstanding questions of material fact, which preclude summary judgment.

14. TQ Delta's Opposed Motion for Leave to Formally Serve the First Supplemental Expert Report of Jonathan D. Putnam on the CommScope Defendants (Dkt. No. 349)

The motion was **GRANTED**. (Dkt. No. 493 at 66:9–11). The Court permitted TQ Delta leave to serve CommScope with Dr. Putnam's First Supplemental Report. Under these facts, the Court found that leave was warranted.

MOTIONS IN LIMINE

It is **ORDERED** that the parties, their witnesses, and counsel shall not raise, discuss, or argue the following before the venire panel or the jury without prior leave of the Court:

I. TQ DELTA'S OPPOSED MOTIONS IN LIMINE (Dkt. No. 451)

TQ Delta's MIL 1

Precluding presentation or argument that TQ Delta or its predecessor-in-interest violated any rule or policy of, or agreement with, any standards body (e.g., ITU or ANSI) by, for example, failing to disclose any specific patent or patent application number to the standards body, or by failing to disclose in a timely manner that it believes it holds any standard essential patent or patent application (e.g., by filing a patent statement and licensing declaration).

The MIL was **GRANTED-AS-MODIFIED**. (Dkt. No. 494 at 8:9–9:1). With the parties' assent, the Court removed the words "for example" from the parties' otherwise agreed MIL, which now provides as follows: "Precluding presentation or argument that TQ Delta or its predecessor-in-

interest violated any rule or policy of, or agreement with, any standards body (e.g., ITU or ANSI) by failing to disclose any specific patent or patent application number to the standards body, or by failing to disclose in a timely manner that it believes it holds any standard essential patent or patent application (e.g., by filing a patent statement and licensing declaration).” (*Id.* at 6:24–7:7).

TQ Delta’s MIL 2

Precluding reference to and presentation of any argument, evidence, and testimony relating to: (a) TQ Delta, LLC’s business model and corporate structure as being suspicious or improper; (b) Other entities that are or that are insinuated to be associated with TQ Delta, LLC such as but not limited to Techquity LP, TQCAP GP, LLC, Techquity Capital Management, LLC, and entities owned, in whole or in part, or managed by them (“Other Entities”), including the identity and number of, and compensation paid to, the Other Entities’ personnel; and (c) Investors or members in TQ Delta and the Other Entities, including their identities, capital contributions, ownership stake, and payments received, if any.

The MIL was **GRANTED**. (Dkt. No. 494 at 11:7–16:9). The Court addressed each sub-part in turn. For sub-part (a), the Court observed that no numerical limit on the use of “non-practicing entity” at trial would be imposed, but the Court noted that excessive use of such term would be restricted. For sub-part (b), the Court held that the probative value of going into TQ Delta’s corporate structure is outweighed by the prejudicial risk and effect of jury confusion. For sub-parts (b) and (c), it noted that while CommScope is not prohibited from addressing a witness’s potential bias as to a particular interest in an entity related to TQ Delta, such examination must be addressed and approved on a case-by-case basis with prior leave of the Court.

TQ Delta's MIL 3

Precluding presentation or argument that TQ Delta, its predecessor-in-interest, or the inventors were aware of prior art (of any kind under 35 U.S.C. § 102) but withheld or failed to disclose it to the Patent Office.

The MIL was **DENIED** in light of CommScope's representations on the record: "[CommScope is] not going to say anything about inequitable conduct[,] . . . accuse anybody of intentionally deceiving or withholding something from the PTO[,] but through the course of what actually happened at the ITU[,] we do expect to go through some documents showing different parties' contributions." (Dkt. No. 494 at 17:14–22).

TQ Delta's MIL 4

Precluding presentation comparing TQ Delta's requested royalty with CommScope's costs or profits from the Accused Products, including comparison to a claimed profit margin for the Accused Products.

The MIL was **DENIED**. (Dkt. No. 494 at 20:20–21:6). However, the Court advised that its ruling does not limit TQ Delta's ability to raise an appropriate and individualized objections based on the rules of evidence and the Court's orders if and when such issues arise.

TQ Delta's MIL 5

Precluding presentation or argument that the Accused Products must be actually operated or used in a particular mode (e.g., to provide DSL service or in a G.inp or G.bond mode) in order to infringe or in order to determine the appropriate amount of damages.

The MIL was **DENIED**. (Dkt. No. 494 at 31:18–32:24). The Court held that CommScope is permitted to go into those topics identified in the MIL related to damages but not as to infringement. The Court **DENIED** the MIL based on representations by CommScope on the record: "[CommScope is] not going to argue that [it] do[es] not infringe because a product is not used in a particular mode. [CommScope] do[es] think that use, whether someone uses a particular mode is relevant to determine the appropriate amount of damages." (*Id.* at 28:9–13). The Court advised that it expects all expert witnesses to testify within the four corners of their reports, and it will take

up any such objections when appropriately raised. The Court also cautioned the parties about strategic uses of this type of objection.

TQ Delta's MIL 6

Requested Clarification on Court's MIL No. 13: "The parties shall be precluded from introducing evidence, testimony, or argument regarding either party's other litigations or arbitrations, including parallel proceedings in any other court, tribunal, or forum, including ADR proceedings."

The MIL was **DENIED**. (Dkt. No. 494 at 34:18–38:15). The Court rejected TQ Delta's proposed alternatives to the Court's MIL No. 13 and highlighted that the Court's MIL No. 13 precludes references to other litigation. As an example, and not a limitation, the Court made it clear that references to any aspect of the Delaware litigation is precluded unless express prior leave is granted.

II. COMMScope's OPPOSED MOTIONS *IN LIMINE* (Dkt. No. 452)

CommScope's MIL 1

USE OF THE TERMS "HOLDOUT," "HOLDUP," AND "UNWILLING LICENSEE"

The MIL was **DENIED**. (Dkt. No. 494 at 42:1–19). The Court noted that the identified terms in the MIL are live issues within the case; however, the Court advised that excessive use of such terms is not permitted.

CommScope's MIL 2

PRIVILEGED TESTIMONY FROM MARCOS TZANNES.

The MIL was **DENIED**. (Dkt. No. 494 at 49:22–50:10). The Court advised the parties that it will take up related objections on an individualized basis.

CommScope's MIL 3

TESTIMONY CONTRARY TO TQ DELTA'S 30(B)(6) TESTIMONY.

The MIL was **DENIED**. (Dkt. No. 494 at 58:17–63:16). The Court prohibited testimony by witnesses at trial (1) on information that was not disclosed during discovery because of an

OFFERS BY COMMSCOPE DURING SETTLEMENT NEGOTIATIONS

COMMSCOPE'S CONTRIBUTIONS TO STANDARD-SETTING ORGANIZATIONS

So ORDERED and SIGNED this 9th day of March, 2023.

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**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

TQ DELTA, LLC,

Plaintiff,

V.

COMMScope Holding Company, Inc., Commscope Inc., Arris International Limited, Arris Global Ltd., Arris US Holdings, Inc., Arris Solutions, Inc., and Arris Enterprises, LLC,

Defendants.

CIVIL ACTION NO. 2:21-CV-00310-JRG

FINAL JUDGMENT

A jury trial commenced in the above-captioned case on March 17, 2023, and on March 24, 2023, the jury reached and returned its unanimous verdict finding that CommScope Holding Company, Inc., CommScope Inc., Arris International Limited, Arris Global Ltd., Arris US Holdings, Inc., Arris Solutions, Inc., and Arris Enterprises, LLC (collectively, “CommScope” or “Defendants”) infringed Claim 17 of U.S. Patent No. 7,453,881 (the “’881 Patent”), Claim 5 of U.S. Patent No. 8,276,048 (the “’048 Patent”), Claim 18 of U.S. Patent No. 8,468,411 (the “’411 Patent”), and Claim 10 of U.S. Patent No. 9,154,354 (the “’354 Patent”) (collectively, the “Infringed Claims”); that CommScope did not infringe Claim 14 of U.S. Patent No. 8,090,008 (the “’008 Patent”); that the infringement of the Infringed Claims was willful; that Claim 36 of the ’686 Patent and Claim 10 of the ’835 Patent are invalid;¹ that Claim 14 of the ’008 Patent and Claim 5 of the ’048 Patent are not invalid; that the Plaintiff TQ Delta, LLC (“TQ Delta”) did not breach its

¹ Though the verdict indicates the jury found these claims to be infringed, their related finding of invalidity is a defense to such infringement and the Court does not consider the infringement of these claims to be operable or compensable. The Court clearly instructed the jury that invalidity is a defense to infringement, and the Court finds their verdict is consistent with the Court's instructions.

contractual duty to grant licenses regarding its Standard Essential Patents to CommScope on fair, reasonable, and non-discriminatory (“FRAND”) terms; and that TQ Delta is owed \$11,125,000.00 for CommScope’s infringement, to be paid in a one-time lump sum for past and future sales. (Dkt. No. 508.)

Pursuant to Rule 58 of the Federal Rules of Civil Procedure, and in accordance with the jury’s unanimous verdict and the entirety of the record, the Court hereby **ORDERS** and **ENTERS JUDGMENT** as follows:

1. CommScope infringed Claim 17 of the ’881 Patent, Claim 5 of the ’048 Patent, Claim 18 of the ’411 Patent, and Claim 10 of the ’354 Patent;
2. CommScope did not infringe Claim 14 of the ’008 Patent;
3. CommScope’s infringement of the Infringed Claims was willful;
4. Claim 36 of the ’686 Patent and Claim 10 of the ’835 Patent are invalid;
5. Claim 14 of the ’008 Patent and Claim 5 of the ’048 Patent are not invalid;
6. TQ Delta did not breach its contractual duty to grant licenses regarding its Standard Essential Patents to CommScope on FRAND terms;
7. TQ Delta is hereby awarded damages from and against CommScope and shall accordingly have and recover from CommScope the sum of \$11,125,000.00 U.S. Dollars as a reasonable royalty for CommScope’s infringement, to be paid in a one-time lump sum;
8. Notwithstanding the jury’s finding of willfulness, the Court having considered the totality of the circumstances together with the added material benefit of having presided throughout the jury trial and having seen the same evidence and heard the same arguments as the jury, and mindful that enhancement is generally reserved for

“egregious cases of culpable behavior,”² concludes that enhancement of the compensatory award herein is not warranted under 35 U.S.C. § 284 and consequently, the Court elects not to enhance the damages awarded herein;

9. Pursuant to 35 U.S.C. § 284 and Supreme Court guidance that “prejudgment interest shall ordinarily be awarded absent some justification for withholding such an award,”³ the Court awards to TQ Delta from CommScope pre-judgment interest applicable to all sums awarded herein, calculated at the 5-year U.S. Treasury Bill rate, compounded quarterly, from the date of infringement through the date of entry of this Judgment;⁴ and
10. Pursuant to 28 U.S.C. § 1961, the Court awards to TQ Delta from CommScope post-judgment interest applicable to all sums awarded herein, at the statutory rate, from the date of entry of this Judgment until paid.
11. Pursuant to Federal Rule of Civil Procedure 54(d), Local Rule CV-54, and 28 U.S.C. § 1920, TQ Delta is the prevailing party in this case and shall recover its costs from CommScope. TQ Delta is directed to file its proposed Bill of Costs.

All other requests for relief now pending and requested by either party but not specifically addressed herein are **DENIED**.

So ORDERED and SIGNED this 3rd day of May, 2023.



RODNEY GILSTRAP
UNITED STATES DISTRICT JUDGE

² *Halo Electronics, Inc. v. Pulse Electronics, Inc.*, 136 S.Ct. 1923, 1934 (2016).

³ *General Motors Corp. v. Devex Corp.*, 461 U.S. 648, 657 (1983).

⁴ See *Nickson Indus., Inc. v. Rol Mfg. Co., Ltd.*, 847 F.2d 795, 800–801 (Fed. Cir. 1988).

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

TQ DELTA, LLC,

Plaintiff,

v.

COMMSCOPE HOLDING COMPANY,
INC., COMMSCOPE INC., ARRIS
INTERNATIONAL LIMITED, ARRIS
GLOBAL LTD., ARRIS US HOLDINGS,
INC., ARRIS SOLUTIONS, INC., and
ARRIS ENTERPRISES, LLC,

Defendants.

CIVIL ACTION NO. 2:21-CV-00310-JRG

MEMORANDUM OPINION AND ORDER

Before the Court is Plaintiff TQ Delta, LLC’s (“TQ Delta”) Motions for Judgment as a Matter of Law and for a New Trial for U.S. Patent Nos. 7,570,686 and 8,462,835 (the “Motion”). (Dkt. No. 537.) Having considered the Motion and the related briefing, and for the reasons that follow, the Court finds that the Motion should be and hereby is **DENIED**.

I. BACKGROUND

On August 13, 2021, TQ Delta filed the above-captioned lawsuit against CommScope Holding Company, Inc., CommScope Inc., Arris International Limited, Arris Global Ltd., Arris US Holdings, Inc., Arris Solutions, Inc., and Arris Enterprises, LLC (collectively, “CommScope”), asserting infringement of thirteen patents. (*See* Dkt. No. 1.) CommScope answered the Complaint on October 22, 2021, asserting the defenses of invalidity and noninfringement. (*See* Dkt. No. 17.) By the time of trial, TQ Delta had narrowed its case, and trial commenced with TQ Delta asserting infringement of claim 36 of U.S. Patent No. 7,570,686 (the “’686 Patent”), claim 17 of U.S. Patent No. 7,453,881 (the “’881 Patent”), claim 5 of U.S. Patent No. 8,276,048 (the “’048 Patent”), claim 14 of U.S. Patent No. 8,090,008 (the “’008 Patent”), claim 10 of U.S. Patent No. 8,462,835 (the

“‘835 Patent”), claim 18 of U.S. Patent No. 8,468,411 (the “‘411 Patent”), and claim 10 of U.S. Patent No. 9,154,354 (the “‘354 Patent”) (collectively, the “Asserted Claims”). (Dkt. No. 495 at 1.) CommScope similarly narrowed its invalidity theories to target only claim 36 of the ‘686 Patent, claim 5 of the ‘048 Patent, claim 14 of the ‘008 Patent, and claim 10 of the ‘835 Patent. (Dkt. No. 497.) CommScope asserted that claim 36 of the ‘686 Patent and claim 5 of the ‘048 Patent were invalid as obvious, and that claim 14 of the ‘008 Patent and claim 10 of the ‘835 Patent were invalid as both anticipated and obvious. (*Id.* at 2.)

On March 17, 2023, a jury trial commenced in this case. After the close of evidence on March 23, 2023, the Court took up matters from both sides under Federal Rule of Civil Procedure 50(a), where TQ Delta moved that claim 36 of the ‘686 Patent, claim 5 of the ‘048 Patent, claim 14 of the ‘008 Patent, and claim 10 of the ‘835 Patent were not proven invalid during trial. (*See* Dkt. No. 533 at 228:5-229:14, 229:15-230:24, 232:15-22.) TQ Delta’s Rule 50(a) Motions as to the ‘686, ‘048, ‘008, and ‘835 Patents were denied. On March 24, 2023, the Jury returned its verdict. (Dkt. No. 508.) In pertinent part, the Jury found that claim 36 of the ‘686 Patent and claim 10 of the ‘835 Patent were both infringed and invalid.¹ (*Id.* at 4–5.) Accordingly, on May 3, 2023, the Court entered final judgment on the verdict, ordering and entering judgment that claim 36 of the ‘686 Patent and claim 10 of the ‘835 Patent are invalid. (Dkt. No. 513 at 2.) The Court observed in footnote 1 of its judgment that:

Though the verdict indicates the Jury found these claims to be infringed, their related finding of invalidity is a defense to such infringement and the Court does not consider the infringement of these claims to be operable or compensable. The Court clearly instructed the Jury that invalidity is a defense to infringement, and the Court finds their verdict is consistent with the Court’s instructions.

¹ The Jury found that claim 5 of the ‘048 Patent was infringed and not invalid, and that claim 14 of the ‘008 Patent was not infringed and not invalid. (Dkt. No. 508 at 4–5.) The Court rendered final judgment on the verdict. (*See* Dkt. No. 513 at 2.)

(Dkt. No. 513 at 1 n.1.) TQ Delta now seeks JMOL that claim 36 of the ‘686 Patent and claim 10 of the ‘835 Patent are not invalid, asserting that the finding of infringement as to these claims should now attach, and requesting that a new trial on damages be ordered as to these two claims.

II. LEGAL STANDARD

Upon a party’s renewed motion for judgment as a matter of law following a jury verdict, the Court asks whether “the state of proof is such that reasonable and impartial minds could reach the conclusion the jury expressed in its verdict.” FED. R. CIV. P. 50(b); *Am. Home Assur. Co. v. United Space Alliance*, 378 F.3d 482, 487 (5th Cir. 2004). “The grant or denial of a motion for judgment as a matter of law is a procedural issue not unique to patent law, reviewed under the law of the regional circuit in which the appeal from the district court would usually lie.” *Finisar Corp. v. DirectTV Group, Inc.*, 523 F.3d 1323, 1332 (Fed. Cir. 2008). “A JMOL may only be granted when, ‘viewing the evidence in the light most favorable to the verdict, the evidence points so strongly and overwhelmingly in favor of one party that the court believes that reasonable jurors could not arrive at any contrary conclusion.’” *Versata Software, Inc. v. SAP Am., Inc.*, 717 F.3d 1255, 1261 (Fed. Cir. 2013) (quoting *Dresser-Rand Co. v. Virtual Automation, Inc.*, 361 F.3d 831, 838 (5th Cir. 2004)).

Under Fifth Circuit law, a court is to be “especially deferential” to a jury’s verdict, and must not reverse the jury’s findings unless they are not supported by substantial evidence. *Baisden v. I’m Ready Productions, Inc.*, 693 F.3d 491, 499 (5th Cir. 2012). “Substantial evidence is defined as evidence of such quality and weight that reasonable and fair-minded men in the exercise of impartial judgment might reach different conclusions.” *Threlkeld v. Total Petroleum, Inc.*, 211 F.3d 887, 891 (5th Cir. 2000). A motion for judgment as a matter of law must be denied “unless the facts and inferences point so strongly and overwhelmingly in the movant’s favor that reasonable

jurors could not reach a contrary conclusion.” *Baisden* 393 F.3d at 498 (citation omitted). However, “[t]here must be more than a mere scintilla of evidence in the record to prevent judgment as a matter of law in favor of the movant.” *Arismendez v. Nightingale Home Health Care, Inc.*, 493 F.3d 602, 606 (5th Cir. 2007).

In evaluating a motion for judgment as a matter of law, a court must “draw all reasonable inferences in the light most favorable to the verdict and cannot substitute other inferences that [the court] might regard as more reasonable.” *E.E.O.C. v. Boh Bros. Const. Co., L.L.C.*, 731 F.3d 444, 451 (5th Cir. 2013) (citation omitted). However, “[c]redibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from the facts are jury functions, not those of a judge.” *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000). “[T]he court should give credence to the evidence favoring the nonmovant as well as that ‘evidence supporting the moving party that is uncontradicted and unimpeached, at least to the extent that evidence comes from disinterested witnesses.’” *Id.* at 151 (citation omitted).

III. DISCUSSION

Pursuant to Federal Rule of Civil Procedure 50(b), TQ Delta moves for renewed JMOL that claim 36 of U.S. Patent No. 7,570,686 (“the ‘686 Patent”) is not invalid as obvious and that claim 10 of U.S. Patent No. 8,462,835 (“the ‘835 Patent”) is not invalid as either anticipated or obvious. (Dkt. No. 537 at 1.) This Motion renews TQ Delta’s previous motions for the same relief raised under Federal Rule of Civil Procedure 50(a) which the Court previously denied. (*See* Dkt. No. 533 at 228:5-229:14, 229:15-230:24.) To the extent the Court grants the JMOLs regarding invalidity, TQ Delta also moves for a new trial on damages for CommScope’s infringement of claim 36 of the ‘686 Patent and/or claim 10 of the ‘835 Patent. (Dkt. No. 537 at 1.) CommScope responds that there is substantial evidence supporting the Jury’s verdict that the asserted claims of

the ‘686 and ‘835 Patents are invalid, necessitating denial of the Motion. (Dkt. No. 546 at 1.) The Court now turns to the substance of the Motion.

A. Claim 36 of the ‘686 Patent

TQ Delta argues that CommScope failed to present legally sufficient evidence by which a reasonable jury could have found by clear and convincing evidence that claim 36 of the ‘686 Patent was obvious under 35 U.S.C. § 102, the only proffered basis for invalidity. (Dkt. No. 537 at 1.) Specifically, TQ Delta asserts that CommScope failed to present any evidence of motivation to combine the asserted prior art or a reasonable expectation of success in doing so, and further, that all elements of claim 36 were present in the asserted prior art. (*Id.*)

i. Motivation to Combine, Reasonable Expectation of Success, and Disclosure of Element 36[b] in Prior Art Reference Combination

To demonstrate obviousness, CommScope had the burden to prove by clear and convincing evidence that a person of ordinary skill in the art (“POSITA”) at the time of the invention would have been motivated to combine the references and would have had a reasonable expectation of success in so doing. 35 U.S.C. § 103(a); *see InTouch Techs., Inc. v. VGO Commc’ns, Inc.*, 751 F.3d 1327, 1347 (Fed. Cir. 2014) (internal citations omitted). Conclusory expert testimony and/or hindsight bias are not enough to satisfy that burden. *Id.* at 1352.

At trial, the only invalidity theory CommScope pursued for claim 36 was the combination of ITU-T Temporary Document FI-071 (“FI-071” or “AT&T Combination”) and ITU-T Recommendation G.992.1 (“G.992.1” or “ADSL”). (Dkt. No. 537 at 3, citing Dkt. No. 497 at 2.) CommScope put on evidence of this theory via trial deposition of their expert, Dr. Cimini. (*Id.*) TQ Delta contends that Dr. Cimini did not mention and was not asked about the motivation to combine the asserted references in the way required to arrive at the invention recited in claim 36. (*Id.* at 3, citing Dkt. No. 532 at 153:24-154:5 and 155:21-170:15.) TQ Delta argues that at best,

Dr. Cimini’s testimony “simply inventoried whether individual claim elements were purportedly found in the collective disclosures of FI-071 and G.992.1,” and explained that each of the individual claim elements were known.² (*Id.* at 4.) As TQ Delta points out, simply demonstrating that each independent element of a patent was known in the prior art does not suffice, by itself, to prove obviousness. *See KSR Intern. Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007).

TQ Delta argues that CommScope put forth no evidence showing why or how a POSITA would have put together or modified the two references with a reasonable expectation of success. (*Id.* at 5.) This assertion works in tandem with TQ Delta’s position that the proposed combination would not result in element 36[b], and therefore not arrive at the claimed invention. (*Id.* at 6.) According to TQ Delta, neither FI-071 nor G.992.1 describes a scheme in which diagnostic information is transmitted “using multicarrier modulation with DMT symbols that are mapped to one bit of the diagnostic message,” as required by claim element 36[b]. (*Id.* at 5.)

Specifically, TQ Delta argues that although FI-071 purportedly discloses including in a diagnostic message the type of diagnostic information specified in claim element 36[d] (“frequency domain received idle channel noise information”), it does not detail a modulation scheme that would be used to transmit that information. (*Id.*, citing Dkt. No. 532 at 168:21- 169:14, 192:8-14.) Further, it argues that G.992.1 discloses the transmission of diagnostic messages, but such transmission uses the modulation scheme particular to that reference’s embedded operations channel (“EOC”), which does not map DMT symbols to one bit of the diagnostic message. (*Id.*, citing Dkt. No. 532 at 193:16-22, 194:7-20.) Therefore, the proposed combination would not

² Dr. Cimini testified that the preamble of claim 36 is disclosed in G.992.1 (he also refers to G.992.1 as the “ADSL standard”). (Dkt. No. 532 at 164:4-14.) He testified that FI-071 discloses claim element 36[a]. (*Id.* at 165:19-166:14.) He testified that the portion of claim element 36[b], reciting “multicarrier modulation with DMT symbols that are mapped to one bit of the diagnostic message,” is found in the C-RATES messaging scheme of G.992.1. (*Id.* at 158:24-159:5 and 166:24-167:14.) He testified that claim element 36[c] is disclosed in FI-071. (*Id.* at 167:20-168:20.) Lastly, he testified that claim element 36[d] is found in FI-071. (*Id.* at 168:21-169:14.)

include element 36[b] because diagnostic information from FI-071 would be transmitted using G.992.1's EOC (which does not map DMT symbols to one bit, as required by 36[b]). (*See id.* at 5–6.)

TQ Delta concedes that G.992.1 separately describes a modulation scheme called “C-RATES” that does map DMT symbols to one bit; it argues, however, that C-RATES has nothing to do with transmission of diagnostic messages. (*Id.* at 6, citing Dkt. No. 532 at 193:4-12; 194:24-195:2.) TQ Delta asserts that CommScope failed to put on evidence that a POSITA would have been motivated to modify FI-071 to use the C-RATES modulation scheme to transmit diagnostic messages when G.992.1 already had the EOC channel to do so. (*Id.*) Ultimately, TQ Delta argues that the JMOL of no invalidity of claim 36 should be granted on this ground alone—it asserts that CommScope failed to satisfy the requisite clear and convincing evidence burden of a motivation to combine or reasonable expectation of success. (*Id.*)

In addition to the impact on the requirement to establish motivation to combine, TQ Delta argues that CommScope's failure to present sufficient evidence that the prior art includes claim element 36[b] is a separate basis to grant its JMOL. It challenges Dr. Cimini's sole reliance on the C-RATES messaging scheme of G.992.1 to establish that the prior art discloses claim element 36[b]. (*Id.*) TQ Delta's main argument is that a C-RATES message is not a “diagnostic message” and does not transmit diagnostic information as further required by claim element 36[c].³ (*Id.*) Dr. Cimini conceded that the C-RATES information is not diagnostic information. (Dkt. No. 532 at 194:25-195:2.) Further, TQ Delta points out that Dr. Cimini admitted that G.992.1's existing messaging scheme for transmitting diagnostic information—the EOC—does not use a modulation

³ Claim element 36[c] recites “wherein the diagnostic message comprises a plurality of data variables representing the diagnostic information about the communication channel.” (*See* Trial Ex. 2 at 12:66-13:2.)

scheme in which DMT symbols are mapped to one bit, as recited in claim element 36[b]. (*Id.*, citing Dkt. No. 532 at 194:17-20.)

In response, CommScope argues that there was more than sufficient evidence of a motivation to combine the prior art references with a reasonable expectation of success. (Dkt. No. 546 at 2.) It points out that in introducing the FI-071 and G.992.1 reference combination to the Jury, Dr. Cimini testified that FI-071 itself indicates that it should be combined with ADSL (or G.992.1).⁴ (*See id.* at 2–3.) The abstract statement in FI-071, which was shown to the Jury, states: “[t]his paper proposes additional diagnostic information be specified in G.992.1bis and G.992.2bis [ADSL] including a quiet line PSD measurement and a line balance measurement.” (Dkt. No. 546-2 at 12.) Because the reference itself expresses that it should be combined with G.992.1, CommScope argues that there was sufficient evidence that a POSITA would have been motivated to combine the references with a reasonable expectation of success. (Dkt. No. 546 at 3.) Further, CommScope notes that TQ Delta did not cross-examine Dr. Cimini on this opinion or present any affirmative evidence to demonstrate no motivation to combine the FI-071 with G.992.1 with a reasonable expectation of success. (*Id.* at 4.)

In addressing TQ Delta’s argument that CommScope failed to present evidence that Element 36[b] was known in the prior art, CommScope points out that TQ Delta ignores substantial additional evidence presented to the Jury on that point. (*Id.*) CommScope demonstrates that Dr. Cimini testified that the subject matter of Element 36[b] was in the prior art “at least three separate times”; each time, he pointed to G.992.1’s disclosure of the C-RATES1 message in which “only

⁴ Dr. Cimini testified: “So we can see in the abstract right at the top that the paper – that the contribution wants to propose adding diagnostic information to G.992.1, which is ADSL, and in particular it wants to add quiet line power spectral density measurement, which is PSD, and a line balance measurement.” (Dkt. 532 at 160:9-23, referencing Dkt. No. 546-2 at 12 (presented to the Jury).)

one bit of information is transmitted in each symbol.”⁵ (*Id.* at 5.) Next, CommScope explains that the disclosure in the ’686 patent itself told a POSITA to use the C-RATES messaging scheme in conveying a diagnostic message.⁶ (*Id.* at 5.) Lastly, CommScope points to testimony of Robert Pizzano, a named inventor on the ’686 Patent, stating that the inventors intended for the C-RATES message scheme, as described in ADSL and the ’686 patent, to be used to send the diagnostic message described in the ’686 patent. (Dkt. 532 at 214:4-5, 214:18-25, 215:6-8, 215:12-20.) Thus, in addition to Dr. Cimini’s testimony, the Jury was in possession of the references themselves along with evidence of the ’686 Patent specification and inventor testimony. (Dkt. No. 546 at 7.)

TQ Delta contends that CommScope misses the mark with its argument because “[s]imply ‘adding quiet line power spectral density measurement’ from FI-071 to G.992.1 does not result in the claimed invention or render it obvious.” (Dkt. No. 554 at 1.) It argues that if the quiet line noise of FI-071 were added to the diagnostic messages of G.992.1 (as FI-071 suggests), the “natural result” would be the EOC scheme already utilized in G.992.1. (*Id.*) This means, according to TQ Delta, that neither reference discloses using the modulation scheme that Claim 36 requires. (*Id.*) Therefore, “the combination that would result from the only ‘motivation’ evidence CommScope identified would not result in the claimed invention and there would have been no reasonable expectation of success.” (*Id.*) TQ Delta urges that CommScope is attempting to show that POSITA would have been motivated to add FI-071’s quiet line noise to G.992.1’s diagnostic messages, but

⁵ Dr. Cimini testified that “a message with one bit per symbol” was already known in ADSL and the ’686 patent, as summarized in DDX-001.26. (See Dkt. 532 at 158:15-159:15.) Next, he mapped the disclosure of the ADSL reference to the express language of Element 36[b]. (*Id.* at 166:15-167:19.) Lastly, Dr. Cimini reiterated his point during re-direct and testified that “Mr. Pizzano, the inventor, when asked that question, said that he -- about the ’686 patent, he said that that one-bit per symbol messaging was basically just reusing existing standardized symbols.” (*Id.* at 204:5-20.)

⁶ “*In the diagnostic link mode, the RT modem sends diagnostic and test information in the form of a collection of information bits to the CO modem that are, for example, modulated by using one bit per DTM symbol modulation, as is used in the C-Rates1 message in the ITU and ANSI ADSL standards, where the symbol may or may not include a cyclic prefix. ...*” (Tr. Ex. 2 (’686 Patent) at 3:44–50 (emphasis added).)

then would mix and match with a different modulation scheme found in an unrelated portion of G.992.1. (*Id.* at 1–2.) It reiterates that a POSITA would have no reason to use the C-RATES scheme because it is a scheme used for initialization, not transmission of diagnostic messages, and because G.992.1 already has a messaging scheme to transmit diagnostic messages. (*Id.* at 2.) TQ Delta asserts that this argument is further supported by the fact that CommScope elicited no evidence that the EOC is inadequate for transmitting diagnostic messages. (*Id.*)

TQ Delta further argues that the remainder of the evidence CommScope points to is unavailing. Regarding the disclosure of the ‘686 Patent, TQ Delta points out that the law is clear that a party cannot “use the challenged patent as a roadmap to reconstruct the claimed invention using disparate elements from the prior art – *i.e.*, the impermissible ex post reasoning and hindsight bias that *KSR* warned against.” (*Id.* at 3, citing *TQ Delta, LLC v. CISCO Systems, Inc.*, 942 F.3d 1352, 1361 (Fed. Cir. 2019).) In addressing Robert Pizzano’s testimony that the ‘686 Patent’s inventors intended for the C-RATES scheme to be used to send diagnostic messages, TQ Delta argues that his assertion does not support a finding of obviousness. (*Id.* at 3.) TQ Delta appears to argue that because the specific combination of “using one bit per DMT symbol to communicate diagnostic information” was not in either of the prior art references, Pizzano’s testimony does not help CommScope. (*See id.*) TQ Delta cites *In re Van Os* for the proposition that a conclusory assertion of motivation to combine—as it implies CommScope has done here—is inadequate. (*Id.* at 2, citing 844 F.3d 1359, 1361–62 (Fed. Cir. 2017).)

CommScope contends in response that it identified and presented ample evidence that a POSITA would have modified the combination of the FI-071 and G.992.1 to use the C-RATES message scheme to transmit a diagnostic message rather than the EOC scheme. (Dkt. No. 557 at 1.) CommScope adds that Mr. Pizzano, as an inventor of the ‘686 Patent and a POSITA, provided

a basis of motivation to use the C-RATES message scheme—“it was useful because its one-bit-per-symbol messaging scheme was ‘able to push [diagnostic] data through under the worst condition.’” (*Id.* at 2, citing Dkt. 532 at 215:12-20.) Contrary to TQ Delta’s argument, CommScope urges that there was nothing “conclusory” about the presented motivation to combine. (*Id.* at 2.)

Regarding TQ Delta’s argument that CommScope used hindsight bias by pointing the ‘686 disclosure itself, CommScope points out that Dr. Cimini explained that the patent specification describes a prior art messaging scheme to be used to convey a diagnostic message, and that fact was admitted by an inventor of the ‘686 Patent. (*Id.*) It contends this is not “akin to ‘us[ing] the challenged patent as a roadmap to reconstruct the claimed invention using disparate elements from the prior art,’” as TQ Delta claims. (*Id.* at 3, internal citations omitted.) Rather than combining disparate elements, use of the C-RATES messaging scheme to convey diagnostic information was encouraged by the prior art and, as the inventor testimony demonstrates, a POSITA would have been motivated to combine such elements to effectively transmit diagnostic information. (*Id.*)

The Court is not convinced by TQ Delta’s argument that the record was devoid of evidence regarding a motivation to combine and reasonable expectation of success, such that the jury verdict should be overturned. As CommScope explains in its briefing, it presented evidence that FI-071 itself recommended combination with ADSL (or G.922.1). This evidence alone provides a basis for a reasonable jury to find that a POSITA would have a motivation to combine the prior art references and a reasonable expectation of success in doing so. Further, Dr. Cimini testified multiple times that the subject matter of Element 36[b] was contained in the prior art, pointing to G.992.1’s disclosure of the C-RATES1 message.

Additionally, CommScope provided testimony from one of the inventors of the '686 Patent stating that the C-RATES scheme was “useful” because it was “able to push [diagnostic] data through under the worst condition.” (Dkt. 532 at 215:12-20.) Contrary to TQ Delta’s assertion, this constituted evidence demonstrating why a POSITA would be motivated to use the C-RATES messaging scheme (rather than the EOC scheme already contained in FI-071). TQ Delta’s argument that the combination of FI-071 and G.992.1 would not result in Element 36[b] is similarly unavailing. TQ Delta focuses on the EOC scheme’s nonconformity with that element, but acknowledges that C-RATES maps DMT symbols to one bit as required by Element 36[b]. Therefore, CommScope presented evidence of a motivation to combine the prior art reference combination with a reasonable expectation of success, and identified each element of claim 36 as known. Accordingly, the Court finds that sufficient evidence supports the Jury’s finding of invalidity.

ii. Disclosure of “Transceiver” Term in Prior Art Reference Combination

To prove invalidity, CommScope was required to demonstrate that the limitations of the claim as properly interpreted are met by the prior art. *See TI Grp. Auto. Sys. (N. Am.) Inc. v. VDO N. Am. L.L.C.*, 375 F.3d 1126, 1139 (Fed. Cir. 2004). TQ Delta argues that CommScope failed, in particular, to present evidence that either prior art reference includes a “transceiver” as the Court construed that term. (Dkt. No. 537 at 8.) Element 36[a] recites: “instructions that when executed direct a transceiver to receive or transmit an initiate diagnostic mode message.” (Trial Ex. 2 at 12:63-66.) The Court construed “transceiver” to mean “communications device capable of transmitting and receiving data where the transmitter portion and receiver portion share at least some common circuitry.” (Dkt. No. 169 at 15.) TQ Delta asserts that missing from CommScope’s evidence was any indication that either FI-071 or G.992.1 discloses a “transmitter portion and

receiver portion [that] share at least some common circuitry.” (Dkt. No. 537 at 9.) It additionally argues that Dr. Cimini did not even mention this construction during his testimony, only acknowledging that he’d reviewed and applied the Court’s constructions to his analysis. (*Id.*, citing Dkt. No. 532 at 153:20-23.)

CommScope points out that, as TQ Delta acknowledges, Dr. Cimini explicitly confirmed that he reviewed the Court’s constructions and applied them in his analysis. (Dkt. No. 546 at 7, citing Dkt. No. 537 at 9.) Further, Dr. Cimini testified that FI-071 discloses “diagnostic information at both ends of the line, and it’s communicated over the loop.” (Dkt. No. 532 at 161:3–5.) This was supported by the language of FI-071, which states that “[t]here are occasions where diagnostic tests are performed from either end of the subscriber line.” (Dkt. No. 546-2 (Tr. Ex. 47) at COMMScope000402; *see also* Dkt. No. 546-2 at 19, 30 (DDX-001.19, DDX-001.30).) Further, argues CommScope, the ADSL standard “includes extensive disclosure of a transceiver with common circuitry,” stating: “[ADSL] Transceivers on a metallic twisted pair that allows high-speed data transmission between the network operator end (ATU-C) and the customer end (ATU-R).” (Dkt. No. 546 at 8, citing Dkt. No. 546-2 at COMMScope001024.) Both the ADSL standard and FI-071 were presented to the Jury. (*Id.*) CommScope asserts that this language demonstrates that the two ends are connected by common circuitry. (*Id.*) Lastly, CommScope notes that TQ Delta never contested at trial that the prior art reference combination disclosed a transceiver with common circuitry. (*Id.* at 9.)

TQ Delta argues in response that none of the evidence CommScope points to in its Opposition discusses shared or common circuitry. (Dkt. No. 554 at 4.) It points out that the Court’s construction of a “transceiver” requires transmission and receipt of data within a *single* communications device—it urges that CommScope attempts to establish common circuitry of *two*

devices, each found in a different location. (*Id.*) It notes that perhaps CommScope misunderstands the Court’s construction as referring to “transmitting by one device on one end of the line and receiving by a different device on the other end of the line.” (*Id.*) TQ Delta asserts that this is evidenced by CommScope’s reliance on the ADSL standard’s language (quoted *supra*) and argument that “[s]uch disclosure makes it clear that the transceiver shares at least some common circuitry to convey information from one end of the line (“ATU-C receiver”) to the other (“ATU-R”). (Dkt. No. 554 at 4–5.) However, argues TQ Delta, “the claimed ‘transceiver’ is not the combination of the ATU-C and the ATU-R at different ends of the telephone line and the ‘shared circuitry’ is not the metallic twisted pair that runs between the two ends.” (*Id.* at 5.) Lastly, it argues that CommScope’s experts did not testify that the portions of prior art that it now relies on showed disclosure of a transceiver at trial. (*Id.*)

CommScope argues that its cited evidence does demonstrate that the prior art meets the Court’s construction as described by TQ Delta. (Dkt. No. 557 at 4 n.1.) It asserts that specifically, “the transceivers on each end of the loop are capable of *both* transmitting and receiving in a single device by virtue of being able to receive ‘diagnostic information at both ends of the line.’” (*Id.*, quoting Dkt. No. 546 at 7–8.) Therefore, urges CommScope, the transceivers in the prior art disclose use of common circuitry, and contrary to TQ Delta’s assertion, these portions of the prior art were relied on to demonstrate the disclosure by the prior art of a transceiver at trial. (*Id.*; see also *id.* at 5 n.2, citing Dkt. No. 532 at 161:3–6.) It notes that, like in *Genband v. Metaswitch*, CommScope has pointed to specific evidence in the trial record where its witnesses provided testimony that the pertinent claim was satisfied by the prior art. (*Id.* at 4–5, citing 2016 WL 5480908, at *22 (E.D. Tex. Sept. 29, 2016) (denying JMOL where the defendant argued that plaintiff’s expert failed to present specific evidence that the accused products met the court’s

construction of a particular limitation).) CommScope concludes that the Jury had a sufficient evidentiary basis for invalidity, especially in light of TQ Delta's failure to present any witness at trial to testify as to validity regarding the '686 Patent. (*See id.* at 5.)

Again, the Court is unpersuaded by TQ Delta's arguments. After a fulsome review of the record, the Court finds that supporting evidence is not so lacking as to justify overturning the jury verdict. Dr. Cimini testified that FI-071 discloses "diagnostic information at both ends of the line, and it's communicated over the loop." (Dkt. No. 532 at 161:3–5.) The Jury determined, as it was entitled to, that this meant the prior art reference disclosed common circuitry because the transceivers on each end of the loop were capable of both transmitted and receiving. Further, CommScope supported Dr. Cimini's testimony at trial with language from FI-071 and ADSL, both of which were presented to the Jury. The burden was CommScope's, but as it points out, TQ Delta failed to present contrary evidence at trial to convince the Jury of its current theory that the prior art references did not disclose a transceiver as construed by the Court. The fact that Dr. Cimini did not recite the specific words of the Court's construction does not make his testimony insufficient *per se*. Dr. Cimini testified that he read and relied on the Court's construction of the terms, the Jury had the definitions on hand during its deliberations, and CommScope provided evidence that allowed the Jury to determine the prior art disclosed a "transceiver" as construed.

B. Claim 10 of the '835 Patent

TQ Delta also asserts that CommScope failed to present legally sufficient evidence by which a reasonable jury could have found by clear and convincing evidence that claim 10 of the '835 Patent was invalid either under a theory of anticipation or obviousness under 35 U.S.C. §§ 102 and 103. (Dkt. No. 537 at 2.) Specifically, TQ Delta contends that CommScope failed to present any evidence at trial that either of the prior art references it relied on for claim 10 of the

835 Patent include a “transceiver,” as the Court construed that term. (*Id.* at 9.) Claim 10 of the ’835 Patent depends on claim 8; Element 8[a] recites: “a transceiver, including a processor, configurable to[.]” (Trial Ex. 6 at 21:36). As explained above, the Court construed the term “transceiver” as “communications device capable of transmitting and receiving data where the transmitter portion and receiver portion share at least some common circuitry.” (Dkt. 169 at p. 15.)

Similarly to its argument regarding the transceiver term in the ’686 Patent, TQ Delta asserts that CommScope’s expert, Mr. McNair, did not discuss or mention the Court’s construction during his testimony, nor did he demonstrate that the ADSL standard meets the claim term as construed. (Dkt. No. 537 at 10.) It further argues that at best, Mr. McNair simply identified that the word “transceiver” is used in the ADSL standard, which is insufficient to demonstrate that the prior art meets the Court’s construction of the term. (*Id.* at 10–11; *see also* Dkt. No. 554 at 5.)

CommScope contends otherwise, arguing that Mr. McNair testified that the prior art itself, in particular the ADSL standard document, includes ATUs, which are “ADSL transceiver units,” and he agreed that there is “[n]o question that ADSL talks about transceivers that have processors.” (Dkt. No. 546 at 9, citing Dkt. 532 at 308:7-18; *see also id.* at 298:18-21 (Mr. McNair testifying that the ADSL standard “ha[s] every single element that’s required by claim 10 of the ’835 Patent”).) CommScope asserts that Mr. McNair’s testimony is supported by the language of the ADSL contribution, “making it clear that within the transceiver, the transmitter portion and receiver portion share at least some common circuitry.” (*Id.* at 9–10, citing Dkt. No. 546-2 (Tr. Ex. 48) at COMMScope001024.) Lastly, CommScope again points out that TQ Delta did not take the opportunity to contest that ADSL disclosed a transceiver with common circuitry during trial. (*Id.* at 10.)

The Court's opinion of TQ Delta's argument here is much the same as its view of its similar argument regarding claim 36 of the '686 Patent. Again, Mr. McNair testified that he read and relied on the Court's construction of the terms, the Jury had the definitions at hand during its deliberations, and CommScope provided evidence that allowed the Jury to determine the prior art disclosed a "transceiver" as construed. Indeed, Mr. McNair specifically testified that the ADSL standard disclosed every element required by claim 10 of the '835 Patent. TQ Delta's argument fails to justify overturning the Jury's verdict.

C. Motion for New Trial

TQ Delta points out that the Jury's verdict found that CommScope infringed claim 36 of the '686 Patent and claim 10 of the '835 Patent; as such, it argues that to the extent the Court enters JMOL of no invalidity of either claim, a new trial is necessary to determine infringement damages. Since the Court declines to enter JMOL as to either claim, the request for new trial is superfluous.

IV. CONCLUSION

Having considered the parties' briefing and the entire record, the Court is persuaded that CommScope introduced substantial evidence that is adequate to support the Jury's verdict as to invalidity as to the two claims at issue. Accordingly, TQ Delta's Motion (Dkt. No. 537) is **DENIED**.

So Ordered this

Aug 24, 2023



RODNEY GILSTRAP
UNITED STATES DISTRICT JUDGE

By the time of trial, TQ Delta had narrowed its case, and trial commenced with TQ Delta asserting infringement of claim 36 of U.S. Patent No. 7,570,686 (the “‘686 Patent”), claim 17 of U.S. Patent No. 7,453,881 (the “‘881 Patent”), claim 5 of U.S. Patent No. 8,276,048 (the “‘048 Patent”), claim 14 of U.S. Patent No. 8,090,008 (the “‘008 Patent”), claim 10 of U.S. Patent No. 8,462,835 (the “‘835 Patent”), claim 18 of U.S. Patent No. 8,468,411 (the “‘411 Patent”), and claim 10 of U.S. Patent No. 9,154,354 (the “‘354 Patent”) (collectively, the “Asserted Claims”). (Dkt. No. 495 at 1.) CommScope similarly narrowed its invalidity theories to target only claim 36 of the ‘686 Patent, claim 5 of the ‘048 Patent, claim 14 of the ‘008 Patent, and claim 10 of the ‘835 Patent. (Dkt. No. 497.) CommScope asserted that claim 36 of the ‘686 Patent and claim 5 of the ‘048 Patent were invalid as obvious, and that claim 14 of the ‘008 Patent and claim 10 of the ‘835 Patent were invalid as either anticipated or if not, obvious. (*Id.* at 2.)

On March 17, 2023, a jury trial commenced in this case. After the close of evidence on March 23, 2023, the Court took up matters from both sides under Federal Rule of Civil Procedure 50(a), where TQ Delta moved that claim 36 of the ‘686 Patent, claim 5 of the ‘048 Patent, claim 14 of the ‘008 Patent, and claim 10 of the ‘835 Patent were not proven to be invalid during trial. (*See* Dkt. No. 533 at 228:5-229:14, 229:15-230:24, 232:15-22.) TQ Delta’s Rule 50(a) Motions as to the ‘686, ‘048, ‘008, and ‘835 Patents were denied.

On the morning of March 24, 2023, the Court held a formal charge conference where it took up challenges to the jury instructions. (*See* Dkt. No. 534.) In relevant part, the jury instructions included the following:

TQ Delta, the Plaintiff, has proposed a cost-savings model of calculating reasonable royalty damages that values the Accused Products that CommScope, the Defendant, provides to its customers. This approach relies upon estimated costs, if any, that CommScope saved from making, using, or selling the Accused Products. In considering the amount of reasonable royalty damages under the cost-savings model, you should focus on whether CommScope’s make, use, or sale of the patented technology allowed it to avoid taking a

different, more costly course of action, and if so, how much CommScope saved by using the Accused Products instead of taking the more costly course of action.

(Dkt. No. 538-1 at 25.) When asked if there were any objections to this provision of the jury instructions, TQ Delta objected as follows:

THE COURT: Let's turn next to page 25. Are there objections here?

MR. FINK: Yes, Your Honor. From the Plaintiff, for the first paragraph and the second sentence that begins, This approach relies upon the estimated costs, Plaintiff objects to the language in the sentence and the following sentence and would propose that the language be changed in the second sentence to, This approach relies upon estimated costs, if any, that the making, using, or selling of the accused products save.

And the following sentence, Plaintiff would change the language to, In considering the amount of reasonable royalty damages under the cost savings model, you should focus on whether CommScope's making, using, or selling of the patented technology avoided taking a different, more costly course of action. And the rest of the sentence would stay the same. So essentially that's for the second sentence striking the 'allowed it to' language and changing 'avoid' to 'avoided'.

(Dkt. No. 534 at 10:14–11:6.) TQ Delta's objection was overruled. (*Id.* at 11:12.)

That afternoon, the Jury returned its verdict. (*See* Dkt. No. 508.) In pertinent part, the Jury found that CommScope infringed claim 17 of the '881 Patent, claim 36 of the '686 Patent, claim 5 of the '048 Patent, claim 10 of the '835 Patent, claim 18 of the '411 Patent, and claim 10 of the '354 Patent.² (*Id.* at 4.) The Jury also found that CommScope's infringement was willful. (*Id.* at 6.) However, the Jury also found the claim 36 of the '686 Patent and claim 10 of the '835 Patent were invalid. (*Id.* at 5.) The Jury assessed damages against CommScope in the amount of \$11,125,000. (*Id.* at 7.)

Accordingly, on May 3, 2023, the Court entered final judgment on the verdict, ordering and entering judgment that CommScope infringed claim 17 of the '881 Patent, claim 36 of the '686 Patent, claim 5 of the '048 Patent, claim 10 of the '835 Patent, claim 18 of the '411 Patent,

² The Jury further found that claim 14 of the '008 Patent was not infringed and not invalid. (Dkt. No. 508 at 4–5.) The Court rendered final judgment on the verdict. (*See* Dkt. No. 513 at 2.)

and claim 10 of the '354 Patent. (Dkt. No. 513 at 2.) It further ordered that claim 10 of the '835 Patent and claim 36 of the '686 Patent were invalid. (*Id.*) The Court observed in footnote 1 of its judgment that:

Though the verdict indicates the Jury found these claims to be infringed, their related finding of invalidity is a defense to such infringement and the Court does not consider the infringement of these claims to be operable or compensable. The Court clearly instructed the Jury that invalidity is a defense to infringement, and the Court finds their verdict is consistent with the Court's instructions.

(*Id.* at 1 n.1.) The Court awarded damages to TQ Delta in the amount of \$11,125,000. (*Id.* at 2.)

TQ Delta now seeks a new trial on damages due to alleged error relating to the jury instructions and admission of evidence. (Dkt. No. 538 at 1.) It also seeks a new trial on the validity of the '835 Patent. (*Id.*) Further, TQ Delta conditionally moves for a new trial on additional damages to the extent that the Court grants one or more of TQ Delta's motions for JMOL of infringement of the '008 Patent (Dkt. No. 539), no invalidity of the '686 Patent (Dkt. No. 538), or no invalidity of the '835 patent (*id.*), or TQ Delta's motion for a new trial on validity of the '835 Patent. (Dkt. No. 538 at 15.)

II. LEGAL STANDARD

"[C]ourts do not grant new trials unless it is reasonably clear that prejudicial error has crept into the record or that substantial justice has not been done, and the burden of showing harmful error rests on the party seeking the new trial." *Metaswitch Networks Ltd. v. Genband US LLC*, 2017 U.S. Dist. LEXIS 137926, at *8 (E.D. Tex. Aug. 28, 2017). "A new trial may be granted, for example, if the district court finds the verdict is against the weight of the evidence, the damages awarded are excessive, the trial was unfair, or prejudicial error was committed in its course." *Smith v. Transworld Drilling Co.*, 773 F.2d 610, 612–13 (5th Cir. 1985); *see also Laxton v. Gap Inc.*, 333 F.3d 572, 586 (5th Cir. 2003). Furthermore, "[u]nless justice requires otherwise, no error in admitting or excluding evidence—or any other error by the court or a party—is ground for granting

a new trial. . . . [T]he court must disregard all errors and defects that do not affect any party's substantial rights." Fed. R. Civ. P. 61.

III. DISCUSSION

TQ Delta moves for a new trial on damages and a new trial on the validity of the '835 Patent. TQ Delta first alleges that the Court committed prejudicial error in its jury instruction on TQ Delta's damages model, warranting a new trial on damages. (Dkt. No. 538 at 6.) Next, TQ Delta argues that the Court erred in permitting CommScope's expert, Dr. Becker, to testify that TQ Delta's royalty should be based on the price of only the DSL chip, independently necessitating a new trial on damages. (*Id.* at 10.) Third, TQ Delta moves that there should be a new trial on the validity of the '835 Patent due to the Court's alleged error in striking paragraphs 69–72 of TQ Delta expert Dr. Madisetti's rebuttal report. (*Id.* at 13.) Lastly, TQ Delta conditionally moves for a new trial on additional damages to the extent that its various other motions are granted. (*Id.* at 15.) CommScope opposes all aspects of the Motion. (*See generally* Dkt. No. 548.) The Court now turns to the substance of the Motion.

A. Motion for New Trial on Damages

i. Jury Instruction on Damages

A party seeking a new trial based on erroneous jury instructions must establish that (1) it made a proper and timely objection to the jury instructions, (2) those instructions were legally erroneous, (3) the errors had prejudicial effect, and (4) it requested alternative instructions that would have remedied the error. *Advanced Display Sys. v. Kent State Univ.*, 212 F.3d 1272, 1281 (Fed. Cir. 2000). "Prejudicial error exists when it 'appears to the court [that the error is] inconsistent with substantial justice.'" *Id.* at 1283 (quoting Fed. R. Civ. P. 61). However, if a party failed to properly preserve its objection, Rule 51(d)(2) provides that a "court may consider a plain

CommScope, on the other hand, contends that TQ Delta failed to properly object to the cost-savings instruction (the “CSI”) such that review of the jury instruction is limited by the exacting “plain error” standard. (Dkt. No. 548 at 2, 4, citing *Russell*, 130 F.3d at 721.) According to the Fifth Circuit, Fed. R. Civ. P. 51(c)(1) is satisfied when a party “specifically object[s] to an instruction prior to the jury’s deliberation and stat[es] the reason for its objection.” *Advanced Display*, 212 F.3d at 1282 (applying 5th Circuit law). CommScope urges that TQ Delta’s objection did not constitute a distinct statement of the grounds for its objection, but instead simply proposed an alternative instruction. (*Id.* at 3, citing *Russell*, 130 F.3d at 719 (“A party does not satisfy [Rule 51(c)] merely by submitting to the court a proposed instruction that differs from the instruction ultimately given to the jury.”).)

CommScope asserts that TQ Delta’s contention that its proposed modifications “clearly indicated the basis for the objection” and its citation to evidence outside the objection (Dkt. No.

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555 at 1) demonstrates the insufficiency of its objection—TQ Delta was required to *state* the reason for its objection. (*See* Dkt. No. 562 at 2–3.) Furthermore, it argues that a party must make a formal objection during the charge conference even if “it has already made its position clear to the district court.” (*Id.*, citing *Jimenez v. Wood County*, 660 F.3d 841, 846 n.7 (5th Cir. 2011).) Since TQ Delta only proposed alterations to the CSI, CommScope insists that review is limited by the plain error standard, which it asserts TQ Delta has not proved is met. (Dkt. No. 548 at 4–5.)

The Court is of the opinion that TQ Delta’s objection to the instruction was not sufficiently specific because it did not set forth a distinct statement of the grounds for the objection. TQ Delta’s objection simply proposed an alternative instruction. It did not state any reason or rationale for its objection. It did not urge the Court in its formal objection, as it does now, that its damages model was premised on cost savings to non-parties rather than to CommScope. The “context” in which the objection was made does not control the analysis—the jury instructions were twenty-five pages long, and there were a multitude of disputed issues throughout the case. It is not the Court’s responsibility to know or recall the “context” for any objection. This is why an objection must specifically set forth the grounds for such objection. The objection here failed to do so. However, because the Court is of the opinion that the Motion fails based on the lower standard premised on legal error and prejudice, it analyzes TQ Delta’s argument as set forth below and notes that the failure to satisfy the lower standard necessarily results in a failure to satisfy the higher plain error standard.⁴

b. Legal Error

TQ Delta argues not only that the CSI was inconsistent with Dr. Putnam’s testimony, but that it was legally erroneous. (Dkt. No. 538 at 6.) TQ Delta notes that it is “well accepted” that a

⁴ TQ Delta cursorily acknowledged the possibility of plain error review in its Motion and recited the elements in a footnote, asserting that the CSI constitutes plain error. (Dkt. No. 538 at 10 n.4; Dkt. No. 555 at 2.)

To support its argument, TQ Delta contends that the lack of a requirement that the model be based on the defendant’s savings is logical because in many cases, it is the accused infringer’s customer that realizes the benefit of use of patented technology. (*Id.* at 7–8.) TQ Delta notes that it is limited to one recovery by the law, unable to recover damages for successive infringers of the same product in the supply chain. (*Id.* at 8, citing *Cal. Inst. of Tech. v. Broadcom Ltd.*, 25 F.4th 976, 994 (Fed. Cir. 2022).) Since it chose to sue the manufacturer, TQ Delta argues, it can base its damages on the cost-savings of the end-user customers and chip supplier to ensure its recovery adequately compensates it for the value of its patents. (*Id.* at 8, citing *Stickle v. Heublein Inc.*, 716 F.2d 1550, 1562 (Fed. Cir. 1983) (“the quantum of [the patent owner’s] recovery for an infringing [product] does not depend on whether [the user] or [the maker/seller] is the defendant.”).) Lastly, TQ Delta boldly claims that “the Court has already found that [TQ Delta’s] cost savings theory is sufficiently reliable and rooted in law” because it denied CommScope’s motion to exclude Dr. Putnam’s damages testimony as “inconsistent with legal precedent.” (*Id.* at 9, citing Dkt. No. 496 at 5.)

defendant “flies in the face of Federal Circuit precedent.” (*Id.* at 6.) It contends that such precedent makes clear that a cost-savings model is based on the savings to the defendant acting as a willing licensee in a hypothetical negotiation.⁵ (*Id.*) Further, CommScope points out that TQ Delta failed to cite a single case establishing that the cost savings to a third party to the hypothetical negotiation may form the basis of a reasonable royalty calculation,⁶ or that the Court was required to instruct the Jury about the factual nuances of TQ Delta’s cost-savings approach. (*Id.* at 7.)

CommScope asserts that basing the cost-savings model on the savings to the defendant simply makes sense, in addition to being consistent with legal precedent. (*Id.* at 6.) It points to 35 U.S.C. § 284, which requires that a damages award be no less than a reasonable royalty for use made of the invention by the *infringer*. (*Id.*) CommScope additionally contends that TQ Delta’s argument regarding the law of exhaustion lacks merit; TQ Delta chose to sue CommScope, not AT&T (the customer) or Broadcom (the chip supplier). (*Id.*) CommScope argues that *Stickle* does not say that damages may be based on cost savings to an accused infringer’s downstream customers. (*Id.* at 7.) Instead, in *Stickle*, the cost-savings approach was based on the savings to an accused user, rather than a third-party downstream user. (*Id.* at 7, citing 716 F.2d at 1562.) Lastly, CommScope argues that the Court’s denial-in-part of CommScope’s motion to exclude Dr. Putnam’s expert testimony was not a previous ruling on whether Dr. Putnam’s cost savings approach was “rooted in law.” (*Id.* at 6 n.3.)

⁵ CommScope cites the following cases in support of its proposition that the cost-savings approach properly focuses on the cost savings to the defendant and willing licensee: *Hanson v. Alpine Valley Ski Area, Inc.*, 718 F.2d 1075, 1080–81 (Fed. Cir. 1983); *Prism Techs. LLC v. Sprint Spectrum L.P.*, 849 F.3d 1360, 1375–76 (Fed. Cir. 2017); *Powell v. Home Depot U.S.A., Inc.*, 663 F.3d 1221, 1240–41 (Fed. Cir. 2011); *Aqua Shield v. Inter Pool Cover Team*, 774 F.3d 766, 771–72 (Fed. Cir. 2014); *Mobile Equity Corp. v. Walmart Inc.*, No. 2:21-cv-00126-JRG-RSP, 2022 U.S. Dist. LEXIS 175050, at *8–9 (E.D. Tex., Sept. 27, 2022).

⁶ CommScope notes that *Hanson*, the “sole case TQ Delta cites in support” of its model, focused on the cost savings to the defendant acting as a willing licensee. (*Id.* at 6 n.4, citing *Hanson*, 718 F.2d at 1079.)

As an initial matter, the Court did not find that Dr. Putnam’s damages model was “rooted in law” as TQ Delta contends; as CommScope points out, the Court’s role as gatekeeper is to ensure that a proposed expert’s testimony is sufficiently reliable and relevant to the issues at hand to be submitted to the Jury. *See* Fed. R. Evid. 702; *Daubert v. Merrell Dow Pharms.*, 509 U.S. 579 (1993). The Court’s denial-in-part of CommScope’s motion to exclude Dr. Putnam’s testimony did not predetermine the jury instructions in this case. Importantly, none of the express bases for CommScope’s *Daubert* challenge were that the cost savings model was not based on a third party’s savings.⁷ The Court’s order in its Order on Pretrial Motions (Dkt. No. 496) was that Dr. Putnam’s opinions were not so flawed as to require exclusion. Such a ruling was a far cry from an affirmative ruling that TQ Delta’s damages theory was “rooted in law” as related to a non-party user’s savings being the basis for a cost-saving approach.

Further, the Court is unpersuaded that the jury instruction as given constituted legal error. While CommScope has pointed to no precedent affirmatively holding that the cost-savings approach is limited to the cost savings of the defendant, TQ Delta has not pointed to any case in which the cost-savings approach was premised upon savings to a non-party end user (such as AT&T here). Rather, the cases cited by CommScope demonstrate that cost-savings approach properly focuses on the cost savings to the defendant and willing licensee. (*See* footnote 6, *supra*.) In contrast, TQ Delta first cites the *Hanson* case, stating that it did not limit cost savings to a defendant (Dkt. No. 555 at 2)—yet, that case itself focuses on the cost savings to the defendant acting as willing licensee. *Hanson*, 718 F.2d at 1079. TQ Delta’s reliance on *Stickle* fares no better.

⁷ The motion to exclude contained five grounds for exclusion: (1) Dr. Putnam’s methodology failed to limit damages to the incremental value of the asserted patents (Dkt. No. 346 at 5); (2) Dr. Putnam improperly rejected the SSPPU Rule of the Federal Circuit (*id.* at 8); (3) Dr. Putnam improperly relied on the Nash Bargaining Theory (*id.* at 10); (4) Dr. Putnam used an incorrect date for the hypothetical negotiation (*id.* at 11); and (5) Dr. Putnam’s methodology produces unreliable damages numbers (*id.*). (*See also* Dkt. No. 496 at 5.)

As CommScope correctly points out, the Federal Circuit in *Stickle* rejected a use-based royalty based off the user's (and accused infringer's) use of the accused products because there was no evidence in the record that a willing licensor could have reasonably expected to secure a use royalty from either the maker or the user. *See Stickle*, 716 F.2d at 1562. The Court does not find that *Stickle* stands for the general proposition that the cost-savings approach may be based on the cost savings to a third-party downstream user like AT&T here. This Court is persuaded that the CSI was grounded in Federal Circuit precedent and legally accurate. *See, e.g., Hanson*, 718 F.2d at 1081 (referencing the determination of the *defendant's* cost savings based on use).

In sum, the Court instructed the Jury that TQ Delta utilized a cost savings approach; it instructed the Jury that such an approach relies upon on cost savings to CommScope (the defendant), consistent with legal precedent, and that the Jury should focus on such savings. Nothing in the charge instructed the Jury to disregard the evidence it heard from Dr. Putnam regarding AT&T or Broadcom's cost savings. As discussed below, even if the CSI was legally erroneous and (it was not), the error was not prejudicial and a new trial is not warranted.

c. Prejudice

TQ Delta asserts that the CSI necessarily confused and misled the Jury, effectively telling the Jury to disregard Dr. Putnam's damages model by erroneously describing it as relying on CommScope's cost savings, which Dr. Putnam presented no evidence on. (Dkt. No. 538 at 8.) TQ Delta claims that the instruction "gutt[ed] [TQ Delta's] damages case and unfairly cast doubt on the sufficiency of [its] damages evidence and the credibility of Dr. Putnam and his model." (*Id.*) According to TQ Delta, the Jury could only have concluded that Dr. Putnam's damages model had

no supporting evidence and was forced instead to rely on CommScope's damages model.⁸ (*Id.* at 8–9.) Accordingly, argues TQ Delta, there should be a new trial on damages where the Jury is properly instructed on TQ Delta's damages model. (*Id.* at 9.)

In contrast, CommScope asserts that the CSI had no prejudicial effect on TQ Delta. (Dkt. No. 548 at 7.) It contests TQ Delta's assertion that the CSI told the Jury to disregard Dr. Putnam's damages model; instead, the Court accurately recited the applicable law and expressly told the jury that it "may use either [party's] method." (*Id.*, citing Dkt. No. 532 at 59:14–60:11.) Further, CommScope asserts that TQ Delta's ability to present its arguments was not hampered by the instruction. (*Id.* at 8, citing *Delaronde v. Legend Classic Homes, Ltd.*, 716 Fed. Appx. 322, 327 (5th Cir. 2018) ("When a jury is properly instructed regarding the controlling law and counsel is able to present the jury with inferences it was permitted to make from the evidence, this court cannot conclude a party was seriously impaired in presenting its claim.").) Lastly, CommScope points out that the Jury awarded TQ Delta over \$11 million in damages, a number between TQ Delta's and CommScope's proposed damages numbers. (*Id.*) The Jury heard evidence regarding two methods and the controlling law, and it was free to make its own findings based on the credibility of the methodologies. (*Id.*)

TQ Delta responds that the Court misstated TQ Delta's cost-savings model, the law, and the jury's required focus. (Dkt. No. 555 at 3.) Further, it contends that because TQ Delta had already closed its evidentiary presentation proving cost savings to AT&T and Broadcom, it was prevented from presenting arguments addressing cost savings to CommScope as the CSI required. (*Id.*) Since the Jury was required to faithfully follow the instructions, TQ Delta urges that it could

⁸ Dr. Becker's highest potential damages number, as presented to the Jury, was \$5.7 million. (*See* Dkt. No. 534 at 114:23–25.) Given that the Jury awarded \$11,125,000.00, it is hard to see how the Jury could have been forced to rely on CommScope's damages model.

not have considered any cost savings other than CommScope's. (*Id.*) Without any compelling logic, it urges that the resulting damages award between TQ Delta's and CommScope's proposed numbers does not disprove this. (*See id.*) CommScope answers that the Court never told the Jury that it could not base damages on the cost-savings to AT&T or that TQ Delta's damages model could not be considered. (Dkt. No. 562 at 3.) CommScope asserts that the Court did not misstate TQ Delta's damages model (a cost savings approach), the law, or the jury's focus. (*Id.*)

Even taking as true TQ Delta's arguments that the CSI was legally erroneous (and as discussed *supra*, the Court found no legal error), the Court is unpersuaded that the jury instruction as given materially prejudiced TQ Delta. The instruction did not preclude the Jury from considering Dr. Putnam's testimony regarding cost-savings to AT&T and Broadcom; indeed, nothing in the jury instructions barred consideration of those savings as attributable to CommScope. TQ Delta urges that the only damages model the Jury could have considered while faithfully adhering to the instructions was CommScope's model. However, the resultant damages number awarded directly contradicts this argument—the Jury arrived at a total award between both TQ Delta and CommScope's proposals. TQ Delta proposed \$89 million as a reasonable royalty. (Dkt. No. 534 at 85:20–23.) CommScope proposed \$5.7 million, should the jury found infringement of all seven patents. (*Id.* at 114:23–25.) After ultimately finding that the infringement of four out of seven patents was compensable,⁹ the Jury arrived at a total award of \$11,125,000. (Dkt. No. 508 at 7.) Clearly, the Jury did not take only CommScope's damages model into account, nor was it instructed to. Prejudicial error exists where it appears to the Court that the error is inconsistent with substantial justice. *Advanced Display*, 212 F.3d at 1283 (quoting Fed. R. Civ. P.

⁹ Although the Jury found that six out of the seven Asserted Patents were infringed, it found that two of the infringed patents were invalid. (*See* Dkt. No. 508 at 4–5.) The Jury was instructed that “[i]nvalidity is a defense to infringement” (Dkt. No. 538-1 at 9), and therefore did not take those two patents into account (nor the patent that was not found to be infringed) in the calculation of damages.

61). As the complained of prejudice is contradicted by the Jury’s own verdict, the Court finds no prejudice that justifies overturning that verdict—certainly not an error inconsistent with “substantial justice.”

d. Alternative Instruction

TQ Delta asserts that the Court committed error by failing to modify the CSI, noting that CommScope itself agreed with TQ Delta’s proposed modifications. (Dkt. No. 555 at 3–4, citing Dkt. No. 542-2; Dkt. No. 534 at 11:12.) It again argues that its proposed instruction was a correct statement of the law and was not covered in the charge as a whole because “nowhere else was the jury told that damages could be based on cost savings other than CommScope’s[.]” TQ Delta again argues that the proposed instruction was necessary to avoid impairing TQ Delta’s ability to prove its damages case under the legal standards dictated by the Court. (*Id.*)

CommScope contends that the Court did not err by declining to “genericize” who benefits from the cost savings. (Dkt. No. 548 at 8, citing Dkt. No. 538 at 3.) Relying on its argument regarding the lack of legal error in the given CSI, CommScope urges that the proposal could not be a “substantially correct statement of law” because the cost-savings approach must be based on the use made by CommScope as the accused infringer and hypothetical willing licensee. (*Id.* at 9.) Moreover, it argues, the charge as a whole covered TQ Delta’s damages model such that the charge did not “seriously impair” TQ Delta’s ability to present its damages claim. (*Id.*) Lastly, CommScope clarifies that its objection and subsequent proposed alternation to the CSI made clear that the cost-savings approach is only appropriate when other approaches would be difficult to apply, *Hanson*, 718 F.2d at 1081; and CommScope says it did not agree with TQ Delta’s proposed modifications as TQ Delta argues. (Dkt. No. 562, citing Dkt. No. 555 at 2–3.)

The Court has already rejected TQ Delta's legal error argument. It now rejects this argument as well. The Court has "substantial latitude in crafting jury instructions." *Kanida v. Gulf Coast Medical Personnel LP*, 363 F.3d 568, 578 (5th Cir. 2004) (internal citations omitted). It was not error to decline to genericize the beneficiary of cost savings because the Court applied legal precedent in determining that the relevant cost savings were those to CommScope as the defendant and accused infringer. As already noted, the Court instructed the Jury that TQ Delta's damages model employed a cost-savings approach, and that it was free to apply TQ Delta's methodology. TQ Delta's damages model was therefore covered in the charge as a whole, and the charge did not materially impair TQ Delta's ability to present its damages claim.

ii. Dr. Becker's Testimony

The Court may grant a new trial based on an erroneous evidentiary ruling when the error prejudiced a substantial right of the moving party. *Network-1 Techs. v. Hewlett-Packard Co.*, No. 6:13-CV-00072-RWS, at *10 (E.D. Tex. May 7, 2021); *Munn v. Algee*, 924 F.2d 568, 571 (5th Cir. 1991); Fed. R. Civ. P. 61. Before trial, TQ Delta moved to strike the opinion of CommScope's damages expert, Dr. Becker, that the DSL chip included in the accused customer premises equipment ("CPE") products is the smallest saleable patent practicing unit ("SSPPU") because that opinion was not supported by any testimony or opinions of a technical expert. (See Dkt. Nos. 345, 382, 427.) This motion to strike was denied. (Dkt. No. 496 at 5.) TQ Delta argues that the Court committed further legal error by allowing Dr. Becker's opinion to be presented to the Jury. TQ Delta says this prejudiced it such that it is entitled to a new trial. (Dkt. No. 538 at 4, 11–13.) The Court disagrees for the reasons set forth below.

At trial, Dr. Becker opined that the SSPPU is the DSL chip and that damages should be a running royalty of 1.57% to 2.91% of the selling price of the DSL chip itself, rather than the full

DSL chipset. (Dkt. No. 538 at 4, citing Dkt. No. 533 at 73:19-24; 96:13-97:5; 131:25-132:3; 141:14-143:15.) Further, Dr. Becker “confirmed he based his damages opinion on his understanding that all the infringement of the accused products occurred only in the DSL chip.” (*Id.*, at 11, citing Dkt. No. 533 at 131:25-132:3.) TQ Delta asserts (as it did in its pretrial motion) that Dr. Becker’s SSPPU opinion was not properly premised on purported discussions Dr. Becker had with CommScope’s technical experts, as none of these technical experts disclosed any opinion in their reports that would support Dr. Becker’s position. (*Id.* at 11–12.) At trial, Dr. Becker admitted that he did not have the ability to make the SSPPU analysis on his own, and he acknowledged that CommScope’s technical experts did not testify that the DSL chip is the SSPPU or that they had any discussions with Dr. Becker about the SSPPU. (*Id.* at 11, citing Dkt. No. 533 at 142:14-25; 143:1-15.)

TQ Delta acknowledges that it is permissible for Dr. Becker to rely on the opinions of CommScope’s experts; however, it argues that “he cannot rely on a ‘black box’ of undisclosed and unexplained opinions.” (*Id.* at 11–12, citing, *e.g.*, *Finalrod IP, LLC v. Endurance Lift Sols., Inc.*, No. 2:20-cv-00189, at *8 (E.D. Tex. Oct. 20, 2021) (precluding plaintiff’s damages expert from making statements about plaintiff’s technical expert’s opinion regarding non-infringing alternatives provided on a phone call because the technical expert “never disclosed that opinion or disclosed any analysis to properly support that opinion”). TQ Delta argues that because CommScope’s technical experts presented no opinions about SSPPU to the Jury, TQ Delta had no opportunity to cross-examine them on such opinions; therefore, the SSPPU opinion and following conclusion that the DSL chip should be the base for the royalty was prejudicial. (*Id.* at 12.) TQ Delta also contends that this prejudice was compounded because Dr. Becker’s unsupported testimony allowed the Jury to undervalue TQ Delta’s damages by starting with a smaller royalty

base. (*Id.*) In TQ Delta’s view, it is entitled to a new trial on damages “at which CommScope is not allowed to base its royalty damages theory on just the DSL chip.” (*Id.* at 13, internal citations omitted.)

In response, CommScope contends that Dr. Becker’s complained of conclusion—that the royalty should be based on the price of only the DSL chip—was not premised on the DSL chipset being the SSPPU. (Dkt. No. 548 at 9.) Rather, Dr. Becker based his damages analysis on the license agreements Aware executed around the time of the hypothetical negotiation date, establishing that Aware had a practice of licensing on a chipset basis and explaining the impact of those agreements on the hypothetical negotiation.¹⁰ (*Id.* at 9–10.) Dr. Becker testified that he relied on Dr. Ransom for technical comparability, who concluded that the [REDACTED] chips were technically comparable to the accused Broadcom chipset. (*Id.*, citing Dkt. No. 533 at 87:10–88:8.) CommScope argues that this comparable license analysis was the basis for the conclusion that TQ Delta complains about, and Dr. Becker made clear at trial that he did not need to rely on the SSPPU to conclude that the Aware license agreements were comparable. (Dkt. No. 562 at 4, citing Dkt. No. 533 at 143:16–144:5 (“I don’t need the smallest saleable patent-practicing unit conclusion to reach the conclusion that the Aware licenses are relevant. And so there was no need to spend time with that in my testimony because it’s not indicative or determinative of the conclusions I reach”); 144:15–23.)

As to the arguments addressing the SSPPU opinions themselves, CommScope argues these are just “repackaged *Daubert* arguments[.]” (*Id.* at 10, citing Dkt. No. 493 at 141:27–142:8 (“I am going to deny the Plaintiff’s Motion. I think there’s enough in the record to make it clear that [the

¹⁰ CommScope explains that at trial, Dr. Becker presented a comparable license approach based on Aware’s licenses [REDACTED] which were the closest agreements in time to the hypothetical negotiation date. (Dkt. No. 548 at 10, citing Dkt. No. 533 at 81:16–83:2, 86:7–11, 87:10–88:8, 92:25–93:13.) Dr. Becker testified that these licenses covered DSL chipsets, and the agreements contemplated that those chipsets would be integrated in customer premises equipment. (*Id.*, citing Dkt. No. 533 at 89:17–24, 91:9–92:3, 93:7–11.)

DSL chipset] is probably what is the SSPPU.”).) It urges that it is improper to use a motion for new trial as a renewed *Daubert* challenge, and that TQ Delta’s arguments related to the reliability of Dr. Becker’s opinions regarding the SSPPU should be rejected on the same grounds. (*Id.* at 11, citing *Versata Software, Inc. v. SAP Am., Inc.*, 717 F.3d 1255, 1264 (Fed. Cir. 2013).)

CommScope goes on to argue that even if the Court were to reconsider TQ Delta’s arguments about the SSPPU opinions, they are still without merit. (*Id.*) It challenges TQ Delta’s allegation that the Jury heard no testimony or evidence that supports Dr. Becker’s analysis; indeed, it points to testimony by Dr. Cimini and Dr. Ransom that TQ Delta’s own technical experts pointed solely to functionality found within the Broadcom chipset in connection with infringement. (*Id.*, citing Dkt. 532 at 154:7–155:4, 155:5–20, 233:22–234:20.) CommScope also argues that its technical experts testified at trial about the information which Dr. Becker subsequently explained he had confirmed with these same experts during expert discovery. (*Id.*, citing Dkt. 533 at 142:14–25; Dkt. 382 at 5.) Further, CommScope notes that Dr. Becker testified that he specifically discussed with the technical experts the inventive elements of what TQ Delta practices and that they were found within the Broadcom chipset. (*Id.* at 12, citing Dkt. 533 at 142:14–25.) Since these opinions were in the technical experts’ reports, argues CommScope, Dr. Becker was entitled to rely on that information in forming his SSPPU opinion. (*See id.* at 12 n.5.)

CommScope is correct that the Court has already ruled before trial began on the admissibility of Dr. Becker’s SSPPU opinion. The Court found that there was enough in the record to support the position that the chipset was the SSPPU. This was in response to the very same arguments now renewed by TQ Delta. (Dkt. No. 493 at 141:27–142:8.) The Court finds no compelling reason in TQ Delta’s briefing to alter that ruling now. Further, CommScope has pointed to testimony where Dr. Becker testified as to the content of those conversations with the

technical experts.¹¹ CommScope's technical experts were present at trial and subject to cross-examination by TQ Delta. The SSPPU opinion was not "unsupported" as TQ Delta claims, much less so devoid of support so as to justify a new trial on damages.

Further, TQ Delta takes issue with Dr. Becker's conclusion that the royalty should be based on the DSL chipset, and it attacks the SSPPU opinion as a basis for that conclusion. However, Dr. Becker made clear to the jury that his SSPPU opinion did not affect his conclusions.¹² (*See* Dkt. No. 533 at 144:15–23 ("Q. ... Whether or not the chip, the semiconductor chip, is the smallest saleable patent-practicing unit, does that affect your conclusions and analysis in this case in any way or change what you've told the jury? A. No.").)

In sum, Dr. Becker fully explained his comparable license approach and resulting conclusion that the DSL chipset should be the royalty base, and he further explained the independence of this analysis from the SSPPU opinion. There is enough in this record, even if the Court finds that the SSPPU opinion was unsupported (which it does not), to independently support Dr. Becker's conclusion that the DSL chipset should be the royalty base. Since Dr. Becker's conclusion regarding the royalty base did not hinge on the SSPPU opinion, there is no prejudice; much less sufficient prejudice to warrant a new damages trial.

B. Motion for New Trial on Validity of '835 Patent

TQ Delta next contends that the Court improperly struck four paragraphs from Dr. Madisetti's rebuttal report on invalidity concerning the '835 Patent, resulting in material prejudice

¹¹ For example, Dr. Becker testified that "they told me that all of the sort of inventive aspects of the patents that were being accused by TQ Delta's experts were found in the Broadcom chip." (Dkt. No. 562 at 4, citing Dkt. 533 at 142:14–23.)

¹² TQ Delta points out that Dr. Becker testified to the contrary. (Dkt. No. 555 at 4, citing Dkt. No. 533 at 131:25–132:3 ("Q. You believe, don't you sir, it's your testimony, and it's the basis for your opinion that the [SSPPU] in this case is the DSL chip, don't you? A. I do.") The Court notes that this testimony came before he clarified that his SSPPU opinion does not affect his conclusions in the case, and it was in response to a compound and potentially confusing question. In any case, it is left to Jury to weigh reliability of testimony.

which would support a new trial. (Dkt. No. 538 at 13.) Specifically, the stricken paragraphs in Dr. Madisetti's rebuttal report expressed his opinion that prior art reference G.992.1's DRA_Swap_Request and DRA_Swap_Reply messages do not meet the "flag signal" requirement of claim 10 of the '835 Patent because they do not "indicate" when the updated FIP setting is to be used but instead *set forth* the change in time in the message itself. (Dkt. No. 538 at 13, emphasis in original.) The Court struck these paragraphs because they conflicted with the Court's claim construction for "flag signal"; which is: a "signal used to indicate when an updated FIP setting is to be used (the signal does not include the FEC codeword counter value upon which the updated FIP setting is to be used)." (See Dkt. No. 496 at 4; Dkt. No. 169 at 91.)

TQ Delta urges that Dr. Madisetti's opinions were in fact consistent with the positive portion of the Court's construction of "flag signal" requiring a "signal used to *indicate* when an updated FIP setting is to be used." (Dkt. No. 538 at 14, quoting Dkt. No. 169 at 91 (emphasis added).) The stricken opinions explained Dr. Madisetti's position that the prior art reference's DRA_Swap_Request and DRA_Swap_Reply messages cannot meet the Court's construction because they themselves include information that sets forth, rather than indicates, when the updated FIP setting is to be used. (*Id.* at 14, 14 n.5, citing Dkt. No. 342-3 (Madisetti Report).) TQ Delta asserts that this is reasonable because the use of "flag signal" in the '835 Patent specification and related claim language showing that the switching time is "predefined," rather than specified in a message during operation.¹³ (*Id.* at 14, citing Tr. Ex. 6 ('835 Patent), at 19:14-30 and at claim 8.)

¹³ TQ Delta argues that the Court recognized this same distinction: "This usage of 'pre-defined' and 'following' demonstrates that a 'flag signal' does not itself set forth a change time but rather is merely an indication that the updated FIP setting / interleaver parameter value should be used at some juncture that is pre-defined in relation to when the flag signal is received." (Dkt. No. 538 at 14, quoting Dkt. No. 169 at 90.)

Further, TQ Delta alleges that this “erroneous” exclusion was materially prejudicial because it prevented Dr. Madisetti from presenting conclusive evidence to the Jury that G.992.1 did not disclose a “flag signal” because those messages “set forth a change time” as opposed to “flag signal” as construed, requiring an indication instead. (*Id.* at 14–15.) Had these paragraphs not been excluded, TQ Delta surmises that the Jury “would not have had substantial evidence upon which it could have reasonably found that G.992.1 anticipates claim 10 of the ’835 Patent.” (*Id.* at 15.)

In response, CommScope contends that this portion of the Motion is yet another attempt by TQ Delta to inappropriately re-argue *Daubert* arguments, and the request for new trial on the invalidity of the ’835 Patent should be denied on this reason alone. (Dkt. No. 548 at 14.) However, should the Court consider the merits of the argument, CommScope argues that the same ruling should result because Dr. Madisetti improperly provided his own construction for the term “flag signal.” (*Id.*) In particular, Dr. Madisetti stated that it was his opinion “that a flag signal is required to be a flag signal that has no information.” (*Id.*, citing Dkt. 342 at 1 (quoting Dkt. 342-3 at ¶ 71).) CommScope asserts that this opinion tracked TQ Delta’s rejected proposed construction for the term “flag signal,” and that he used his own claim construction as a basis to distinguish the prior art. (*Id.* (“Compare Dkt. 169 at 87, 90 with [Dkt. No. 342-3 at ¶ 72]”); citing Dkt. No. 342-3 at ¶ 72.)

Moreover, CommScope argues, the exclusion of these four paragraphs of a report is not prejudicial, and does not warrant a new trial. Indeed, Dr. Madisetti offered a different opinion at trial that the “flag signal” limitation as construed was not met by the prior art. (*Id.*, citing Dkt. No. 533 at 168:8–19.) As CommScope points out, TQ Delta was able to cross-examine Mr. McNair on his opinions regarding invalidity, though it chose not to address the “flag signal” limitation

during that cross-examination. (*Id.* at 15, citing *Cardsoft, Inc. v. Verifone Holdings, Inc.*, No. 2:08-cv-98-RSP (E.D. Tex. Sept. 30, 2013) (“[Defendant] did not cross-examine him on the basis for his opinion, and therefore the jury was free to accept or reject this opinion evidence.”).) Finally, CommScope argues that Mr. McNair also opined that the flag signal was found in a second reference, the Texas Instruments contribution (SC-060, Tr. Ex. 57).¹⁴ (*Id.*, citing Dkt. 532 at 311:18–22, 327:10–14.) Since Dr. Madisetti’s excluded opinions did not address this second reference, CommScope argues that exclusion did not prejudice TQ Delta.

The Court is unpersuaded by TQ Delta’s argument that the exclusion of the specified four paragraphs of Dr. Madisetti’s rebuttal report have caused a level of prejudice necessitating a new trial. As noted above, these arguments are properly made at the *Daubert* stage. *See Versata Software*, 717 F.3d at 1264. (post-trial briefing is not the appropriate context for renewing *Daubert* arguments). Even so, the Court previously ruled that Dr. Madisetti construed the term “flag signal” in a manner contrary to the Court’s construction. The Court finds no reason which demands a result contrary to that holding. (See Dkt. No. 169 at 91.) Further, as CommScope points out, there was another basis upon which the Jury could determine that prior art (the Texas Instruments contribution) met the term “flag signal” as construed. Therefore, there was no prejudicial error warranting a new trial regarding the validity of the ’835 Patent.

¹⁴ In TQ Delta’s Reply, it makes a new argument that was not included in its Motion; i.e., that Dr. McNair provided no motivation to combine G.992.1 and SC-060 such that his obviousness theory could not serve as a basis for the verdict. (Dkt. No. 555 at 5.) As CommScope points out, TQ Delta is precluded from asserting a new argument in its Motion. (Dkt. No. 562 at 5, citing *Wantou v. Wal-Mart Stores Tex.*, 2020 U.S. Dist. LEXIS 147595, at *47 (E.D. Tex. Mar. 12, 2020) (“It is black-letter law that arguments raised for the first time in a reply brief are waived ‘as a matter of litigation fairness and procedure.’”) The Court also notes that TQ Delta separately filed a motion for JMOL of validity of the ’686 and ’835 Patents, and while it argued that there was no motivation to combine prior art references for the ’686 Patent, it made no such argument for the ’835 Patent. To be clear, the Court does not consider this argument. Even if it had considered it, the bare assertion that there was no motivation to combine is insufficient by itself and is not supported by evidence.

C. Conditional Motion for New Trial on Additional Damages

Lastly, TQ Delta argues that to the extent the Court grants one or more of TQ Delta's motions for JMOL of infringement of the '008 Patent (Dkt. No. 539), no invalidity of the '686 Patent or no invalidity of the '835 patent (Dkt. No. 537), or TQD's motion for a new trial on validity of the '835 Patent, the Court should also grant a new trial to determine the additional damages that would be due for CommScope's infringement of the additional patent(s). (Dkt. No. 538 at 15.) It argues that a new trial on such damages would be warranted because the jury's verdict did not compensate TQD for CommScope's infringement of any of those patents. (*Id.*)

Regarding the JMOLs of no invalidity of the '686 Patent and the '835 Patents, the Court has already denied that motion. (*See* Dkt. No. 566.) As such, this request is moot. As a part of this Order, the Court denies TQ Delta's motion for new trial on the validity of the '835 Patent, so that request is denied herein. As to the JMOL of infringement of the '008 Patent, that request for relief is requested in that separate motion (Dkt. No. 539), and shall be considered when the Court addresses that Motion.

IV. CONCLUSION

Having considered the parties' briefing and the entire record, the Court is persuaded that CommScope introduced substantial evidence which is adequate to support the Jury's verdict such that no new trial on damages or invalidity of the '835 Patent is warranted. Accordingly, of TQ Delta's Motion (Dkt. No. 539) is **DENIED** in its entirety. The parties are directed to jointly prepare a redacted version of this Order for public viewing and to file the same on the Court's docket as an attachment to a Notice of Redaction within five (5) business days of this Order.

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**UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

TQ DELTA, LLC,

Plaintiff,

Civil Action No.: 2:21-cv-310-JRG

v.

COMMSCOPE HOLDING COMPANY,
INC., COMMSCOPE, INC., ARRIS US
HOLDINGS, INC., ARRIS SOLUTIONS,
INC., ARRIS TECHNOLOGY, INC., and
ARRIS ENTERPRISES, LLC,

Defendants.

NOTICE OF REDACTION

Pursuant to the Court’s Order (Dkt. No. 570), Plaintiff TQ Delta, LLC (“TQ Delta”) and Defendants CommScope Holding Company, Inc., CommScope, Inc., Arris US Holdings, Inc., Arris Solutions, Inc., Arris Technology, Inc., and Arris Enterprises, LLC (“CommScope”) hereby file a redacted public version of the Court’s Memorandum Opinion and Order denying TQ Delta’s Renewed Motion for Judgment as a Matter of Law that Defendants’ Accused Products Infringe Claim 14 of the ’008 Patent (Dkt. No. 539). The parties’ agreed redactions to Dkt. No. 570 are attached as Exhibit A to this Notice.

Dated this February 22, 2024

Respectfully submitted,

/s/ Peter J. McAndrews

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing document was filed electronically in compliance with Local Rule CV-5(a). Therefore, this document was served on all counsel on February 22, 2024.

/s/ Ross R. Barton
Ross R. Barton

“‘835 Patent”), claim 18 of U.S. Patent No. 8,468,411 (the “‘411 Patent”), and claim 10 of U.S. Patent No. 9,154,354 (the “‘354 Patent”) (collectively, the “Asserted Claims”). (Dkt. No. 495 at 1.) CommScope similarly narrowed its invalidity theories to target only claim 36 of the ‘686 Patent, claim 5 of the ‘048 Patent, claim 14 of the ‘008 Patent, and claim 10 of the ‘835 Patent. (Dkt. No. 497.) CommScope asserted that claim 36 of the ‘686 Patent and claim 5 of the ‘048 Patent were invalid as obvious, and that claim 14 of the ‘008 Patent and claim 10 of the ‘835 Patent were invalid as either anticipated or if not, obvious. (*Id.* at 2.) CommScope maintained that none of the Asserted Claims were infringed. (*See* Dkt. No. 466 at 4.)

On March 17, 2023, a jury trial commenced in this case. After the close of evidence on March 23, 2023, the Court took up matters from both sides under Federal Rule of Civil Procedure 50(a). In relevant part, TQ Delta moved the Court to enter judgment as a matter of law (“JMOL”) that claim 14 of the ‘008 Patent was infringed, which CommScope opposed, arguing that the ‘008 Patent was standard essential. (Dkt. No. 533 at 205:12–23; 215:10–25.) The Court denied TQ Delta’s 50(a) motion.

In response to the Court’s request that the parties clarify which patents were and were not standard essential patents (“SEPs”), counsel for CommScope emailed the Court on March 22, 2023 and explained its belief that the ‘008 Patent was “neither essential nor infringed, but in the event that the jury finds [it] to be infringed, then the patent must, by definition, be essential and subject to TQ Delta’s RAND commitment.” (Dkt. No. 549-2 at 1.)

On the morning of March 24, 2023, the Court held a formal charge conference where it took up challenges to its jury instructions and verdict form. (*See* Dkt. No. 534.) In relevant part, the jury instructions included the following:

In light of this FRAND commitment, ladies and gentlemen, I have referred at times in these instructions to SEPs, standard essential patents. The parties have stipulated that the ‘686

Patent, the '881 Patent, the '008 Patent, and the '835 Patent, and the '354 Patent are standard essential patents or SEPs.

(Dkt. No. 534 at 66:23–67:3.) There were no objections to this instruction at the formal charge conference. (*See id.* at 13:15–18, 66:23–67:3.) That afternoon, the Jury returned its verdict. (*See* Dkt. No. 508.) In pertinent part, the Jury found that claim 14 of the '008 Patent was not infringed and not invalid.¹ (Dkt. No. 508 at 4–5.) On May 3, 2023, the Court entered final judgment on the verdict. (*See* Dkt. No. 513 at 2.)

TQ Delta now renews its 50(a) JMOL that CommScope infringed claim 14 of the '008 Patent, and in the alternative, seeks a new trial on the infringement of that claim.

II. LEGAL STANDARD

Upon a party's renewed motion for judgment as a matter of law following a jury verdict, the Court asks whether "the state of proof is such that reasonable and impartial minds could reach the conclusion the jury expressed in its verdict." FED. R. CIV. P. 50(b); *Am. Home Assur. Co. v. United Space Alliance*, 378 F.3d 482, 487 (5th Cir. 2004). "The grant or denial of a motion for judgment as a matter of law is a procedural issue not unique to patent law, reviewed under the law of the regional circuit in which the appeal from the district court would usually lie." *Finisar Corp. v. DirectTV Group, Inc.*, 523 F.3d 1323, 1332 (Fed. Cir. 2008). "A JMOL may only be granted when, 'viewing the evidence in the light most favorable to the verdict, the evidence points so strongly and overwhelmingly in favor of one party that the court believes that reasonable jurors could not arrive at any contrary conclusion.'" *Versata Software, Inc. v. SAP Am., Inc.*, 717 F.3d

¹ The Jury found that CommScope infringed claim 17 of the '881 Patent, claim 36 of the '686 Patent, claim 5 of the '048 Patent, claim 10 of the '835 Patent, claim 18 of the '411 Patent, and claim 10 of the '354 Patent. (*Id.* at 4.) The Jury also found that CommScope's infringement was willful. (*Id.* at 6.) However, the Jury also determined that claim 36 of the '686 Patent and claim 10 of the '835 Patent were invalid. (*Id.* at 5.)

1255, 1261 (Fed. Cir. 2013) (quoting *Dresser-Rand Co. v. Virtual Automation, Inc.*, 361 F.3d 831, 838 (5th Cir. 2004)).

Under Fifth Circuit law, a court is to be “especially deferential” to a jury's verdict, and must not reverse the jury's findings unless they are not supported by substantial evidence. *Baisden v. I'm Ready Productions, Inc.*, 693 F.3d 491, 499 (5th Cir. 2012). “Substantial evidence is defined as evidence of such quality and weight that reasonable and fair-minded men in the exercise of impartial judgment might reach different conclusions.” *Threlkeld v. Total Petroleum, Inc.*, 211 F.3d 887, 891 (5th Cir. 2000). A JMOL must be denied “unless the facts and inferences point so strongly and overwhelmingly in the movant's favor that reasonable jurors could not reach a contrary conclusion.” *Baisden* 393 F.3d at 498 (citation omitted). However, “[t]here must be more than a mere scintilla of evidence in the record to prevent judgment as a matter of law in favor of the movant.” *Arismendez v. Nightingale Home Health Care, Inc.*, 493 F.3d 602, 606 (5th Cir. 2007).

In evaluating a motion for judgment as a matter of law, a court must “draw all reasonable inferences in the light most favorable to the verdict and cannot substitute other inferences that [the court] might regard as more reasonable.” *E.E.O.C. v. Boh Bros. Const. Co., L.L.C.*, 731 F.3d 444, 451 (5th Cir. 2013) (citation omitted). However, “[c]redibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from the facts are jury functions, not those of a judge.” *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000). “[T]he court should give credence to the evidence favoring the nonmovant as well as that ‘evidence supporting the moving party that is uncontradicted and unimpeached, at least to the extent that evidence comes from disinterested witnesses.’” *Id.* at 151 (citation omitted).

Further, “courts do not grant new trials unless it is reasonably clear that prejudicial error has crept into the record or that substantial justice has not been done, and the burden of showing harmful error rests on the party seeking the new trial.” *Metaswitch Networks Ltd. v. Genband US LLC*, 2017 U.S. Dist. LEXIS 137926, at *8 (E.D. Tex. Aug. 28, 2017). “A new trial may be granted, for example, if the district court finds the verdict is against the weight of the evidence, the damages awarded are excessive, the trial was unfair, or prejudicial error was committed in its course.” *Smith v. Transworld Drilling Co.*, 773 F.2d 610, 612–13 (5th Cir. 1985); *see also Laxton v. Gap Inc.*, 333 F.3d 572, 586 (5th Cir. 2003).

III. DISCUSSION

TQ Delta moves for renewed JMOL pursuant to Federal Rule of Civil Procedure 50(b) that claim 14 of the '008 Patent was infringed. Infringement can be proven based on an accused product's use of an industry standard if the asserted claim is standard essential. *INVT SPE LLC v. Int'l Trade Comm'n*, 46 F.4th 1361, 1377 (Fed. Cir. 2022) (internal citations omitted). Claims are standard essential if the reach of the claims includes any device that practices the standard. *Id.* Only in the situation where a patent covers every possible implementation of a standard can infringement be shown by compliance with the standard. *Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1328 (Fed. Cir. 2010). However, the “industry standard [may] not provide the level of specificity required to establish that practicing that standard would always result in infringement.” *Id.*

At trial, TQ Delta theorized that claim 14 of the '008 Patent was essential to the standard known as VDSL2, that CommScope accused products implemented VDSL2, and thus that CommScope infringed claim 14 of the '008 Patent. (*See* Dkt. No. 539 at 3.) This Motion renews TQ Delta's motion for the same relief requested (and denied) at the Rule 50(a) stage. There, as

As a threshold matter, TQ Delta asserts that CommScope stipulated that the '008 Patent is standard essential to the VDSL2 standard by failing to object to the jury instruction “the ‘008 Patent ... [is a] standard essential patent[] or SEP[],” and thereby conceded that there is no possible way to implement that standard without infringing claim 14. (Dkt. No. 539 at 1; Dkt. No. 534 at 66:25–67:3.) Although CommScope put on evidence and maintained that the '008 Patent was not standard essential throughout trial and at the Rule 50(a) conference, TQ Delta argues that CommScope “did an about face” at the charge conference by stipulating that claim 14 was essential to the VDSL2 standard. (*Id.* at 4.) Under *Fujitsu*, TQ Delta argues, CommScope as “was free to either prove that the claims do not cover all implementations of the standard or to prove that it does not practice the standard.” (*Id.*, citing *Fujitsu*, 620 F.3d at 1327.) TQ Delta argues that CommScope ultimately stipulated to the opposite. (*Id.* at 7, citing Dkt. No. 530 at 66:25-67:2.)

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in light of this, no reasonable jury could have found that the '008 Patent was not standard essential to the VDSL2 standard. (*Id.*)

In response, CommScope clarifies that it never did an “about face” regarding infringement or the standard essentiality of the '008 Patent. (Dkt. No. 549 at 8.) Throughout trial, CommScope argued that the accused products did not meet claim elements 14[b] and 14[c] of the '008 patent because Section 12.3.6.2 and Table 12-70 of the VDSL2 standard did not work in the same way as claim 14. (*Id.* at 9.) It points to its communication to the Court, asserting that it always maintained that the '008 patent was not infringed, but “*in the event* that the jury finds [the '008 Patent] to be infringed, then the patent must, by definition, be essential and subject to TQ Delta’s RAND commitment.” (Dkt. No. 549 at 8, citing Dkt. No. 549-2.)

TQ Delta ultimately argues that CommScope stipulated to infringement,² and CommScope vehemently disagrees. It asserts this is supported by the jury instructions and verdict form, which unambiguously left infringement of the '008 Patent for the Jury to decide.³ (*Id.* at 9; Dkt. No. 563 at 2.) In CommScope’s view, TQ Delta ignores the context of the jury instruction stating that the parties stipulated to the standard essentiality of the '008 Patent. (*Id.* at 10.) It urges that the Court’s instruction states that, *in the context of the FRAND commitment*, the parties agreed that if damages were incurred for the '008 patent, those damages are limited by FRAND. (*Id.*, citing Dkt. No. 534 at 66:23-68:3.)

² TQ Delta asserts “by stipulating that the 008 Patent is standard essential, CommScope conceded that claim elements 14[b] and 14[c] read on all compliant implementations of the VDSL2 standard” and that “[i]f CommScope believed that [TQ Delta] failed to prove that the 008 Patent is standard essential, CommScope should have sent that issue to the jury.” (Dkt. No. 556 at 1.)

³ For support, CommScope points to its proposed jury instruction stating that “the Court is not instructing you that the asserted patents are actually essential to any standard.” (Dkt. 549 at 9, citing Dkt. No. 549-4 at 36.) TQ Delta argues that this is misdirection—that proposed instruction was a disputed instruction, and that CommScope did not maintain this position through the charge conference. (Dkt. 556 at 2.)

The Court agrees that the record supports CommScope's argument that it never stipulated to the standard essentiality of the '008 Patent for infringement purposes. Instead, as CommScope's email to the Court clarifies, standard essentiality was agreed to only in the event that the Jury found infringement for the purposes of FRAND damages. (*See* Dkt. No. 549-2 at 1 ("CommScope contends that U.S. Patent Nos. ...8,090,008...[is] neither essential nor infringed, but in the event that the jury finds [infringement], then the patent must, by definition, be essential and subject to TQ Delta's RAND commitment.").) TQ Delta asserts that there is nothing in the instruction suggesting that CommScope was entitled to the upside of standard essentiality (the FRAND encumbrance) while maintaining that the '008 Patent is not standard essential for infringement purposes. (Dkt. No. 556 at 2.) The Court disagrees.

The Court's instruction regarding the stipulation applies only in the patent damages context. First, when read in the context of the remainder of the jury instructions and the verdict form, the stipulation is plainly conditional—the Jury would only reach the question of patent damages, and thus the stipulation, if it first found infringement and validity. (*See* Dkt. No. 508 at 7.) Second, there were no objections to the instruction or the verdict form, which made clear that infringement was still an issue to be decided by the Jury. CommScope could properly contest standard essentiality and infringement, *and* conditionally stipulate to standard essentiality in the case that the Jury found infringement because TQ Delta's infringement theory depended on a finding of essentiality. TQ Delta's infringement theory at trial was that the '008 Patent was standard essential, and that CommScope accused products practiced the standard. Necessarily then, if the Jury found infringement, it must have found that the '008 Patent was standard essential.

Accordingly, CommScope's position was not an unfair taking of the "upside" of standard essentiality—rather, it was the logical result of TQ Delta's infringement theory. Since there was

no stipulation to standard essentiality for the purposes of infringement and the instruction to the Jury regarding the stipulation applied only in the patent damages context, the Court moves next to the parties' substantive arguments.

B. TQ Delta Failed to Meet Its Burden to Prove Infringement of the '008 Patent

i. Party Arguments Regarding Standard Essentiality

TQ Delta argues that, even if CommScope did not stipulate to standard essentiality, there is not legally sufficient evidence of record from which a reasonable jury could have found non-infringement of claim 14 of the '008 Patent. (Dkt. No. 539 at 7.) Claim 14 recites:

14[Pre] – A multi carrier system including a first transceiver that uses a plurality of carrier signals for modulating a bit stream, wherein each carrier signal has a phase characteristic associated with the bit stream, the transceiver capable of:

14[a] – associating each carrier signal with a value determined independently of any bit value of the bit stream carried by that respective carrier signal, the value associated with each carrier signal determined using a pseudorandom number generator;

14[b] – computing a phase shift for each carrier signal based on the value associated with that carrier signal; and

14[c] – combining the phase shift computed for each respective carrier signal with the phase characteristic of that carrier signal to substantially scramble the phase characteristics of the plurality of carrier signals, wherein multiple carrier signals corresponding to the scrambled carrier signals are used by the first transceiver to modulate the same bit value.

(Dkt. No. 1-4.) The Court construed the term “phase characteristic(s)” found in the preamble and element 14[c] as “one or more values that represent the language aspect of a constellation point.”

(Dkt. No. 169 at 63.) The Court further construed “computing a phase shift for each carrier signal” in element 14[b] to mean “computing the amount by which a phase is adjusted for each carrier signal.” (*Id.* at 77.)

TQ Delta asserts that its expert, Dr. Madisetti, presented infringement evidence “in the form of the VDSL2 standard, data sheets, the [REDACTED], block diagrams, source code and source code specifications, testimony from the source code developer, Broadcom, and product testing and simulations” to conclude that each accused product infringed each element of claim 14. (Dkt. No.

539 at 8, citing Dkt. No. 530 at 115:1–25.) Conversely, CommScope argues that Dr. Madiseti failed to prove that claim elements 14[b] and 14[c] correspond with either the VDSL2 standard (specifically, Section 12.3.6.2 and Table 12-70 of the standard) or CommScope’s accused products. (Dkt. No. 549 at 3.) Therefore, whether TQ Delta met its burden to prove that claim 14 was infringed depends on the evidence and testimony concerning claim elements 14[b] and 14[c].⁴

TQ Delta’s infringement argument is grounded in the language of the preamble of claim 14. (*See* Dkt. No. 539 at 11.) It argues that the only carrier signals for which a phase shift must be computed and for which the phase shift is combined with the phase characteristic are the “plurality of carrier signals for modulating a bit stream” recited in the preamble. (*Id.*) At trial, TQ Delta mapped the claimed “plurality of carrier signals” to the subcarriers identified in Table 12-68, reproduced below, of the VDSL2 Standard (*see* Dkt. No. 530 at 120:17–22):

Table 12-68 –Bit mapping for R-P-MEDLEY with two bytes per DMT symbol

Subcarrier index	Constellation point
5, 10, 15, ..., $5n$, ...	00
1, 11, 21, ..., $10n + 1$, ...	SOC message bits 0 and 1
2, 12, 22, ..., $10n + 2$, ...	SOC message bits 2 and 3
3, 13, 23, ..., $10n + 3$, ...	SOC message bits 4 and 5
4, 14, 24, ..., $10n + 4$, ...	SOC message bits 6 and 7
6, 16, 26, ..., $10n + 6$, ...	SOC message bits 8 and 9
7, 17, 27, ..., $10n + 7$, ...	SOC message bits 10 and 11
8, 18, 28, ..., $10n + 8$, ...	SOC message bits 12 and 13
9, 19, 29, ..., $10n + 9$, ...	SOC message bits 14 and 15
NOTE – The byte is given as (b7, b6, b5, b4, b3, b2, b1, b0), where b7 is the MSB and b0 is the LSB. Mapping, e.g., "SOC message bits 0 and 1" to subcarriers $10n+1$ means that the two-bit value (b1,b0) shall be used to determine the constellation point in accordance with the encoding rules given in clause 10.3.3.2. This constellation point will then be scrambled using the quadrant scrambler described in clause 12.3.6.2.	

⁴ TQ Delta’s Motion argues that it established that claim elements 14[Pre] and 14[a] practiced the VDSL2 standard as well. (*See* Dkt. No. 539 at 9–10.) As CommScope’s Opposition addresses only elements 14[b] and 14[c], this Order analyzes only those elements. (*See* Dkt. No. 549.)

(Trial Ex. 34 at 261.) Dr. Madisetti explained that the claimed “phase characteristic” for each individual carrier signal is the constellation point values corresponding to the special operations channel (“SOC”) message 0 and 1, 2 and 3, 4, and 5, etc. (Dkt. No. 530 at 121:7–21.) TQ Delta argues that the claimed “plurality of carrier signals for modulating a bit stream wherein each carrier signal has a phase characteristic associated with the bit stream” are only those subcarriers that the transceiver “uses...for modulating the bit stream” of the SOC messages. (Dkt. No. 539 at 9–10.)

TQ Delta urges that another signal, called subcarrier zero, is not one of the “plurality of carrier signals for modulating a bit stream” and is not included in the first column of Table 12-68. (*Id.* at 10.) In TQ Delta’s view, since subcarrier zero does not “ha[ve] a phase characteristic associated with the bit stream” it cannot be one of the “plurality of carrier signals.” (*Id.*) Further, TQ Delta argues that subcarrier zero is not modulated at all and does not have a phase characteristic because it carries a direct current. (*Id.*, citing Trial Ex. 34 at TQD_TX00153996.) Essentially, TQ Delta argues that subcarrier zero falls outside of the scope of claim 14.

On cross, Dr. Madisetti admitted that subcarrier zero was not combined or rotated by a phase shift.⁵ However, TQ Delta maintains that this admission is of no import because subcarrier zero is not one of the “plurality of carrier signals” which must be combined or rotated. (*Id.* at 12.) TQ Delta additionally notes that Dr. Madisetti “confirmed the irrelevance of [subcarrier zero] to his infringement opinions.” (*Id.* at 12–13, citing Dkt. No. 530 at 168:8–20 (Dr. Madisetti stating on redirect examination that he did not “rely” on subcarrier zero).) TQ Delta argues that the entire basis for CommScope’s non-infringement argument at trial and in the briefing is that “when [the subcarrier index] is set to 0, there is no rotation.” (*Id.* at 13, quoting Dkt. No. 533 at 215:15–16.)

⁵ “Q. Now, Doctor Madisetti, just check me and make sure I'm reading right. Does it state, quote, the subcarrier with index 0 DC shall not be rotated? Did I read that correctly, sir? A. Yes. . . .Q. Okay. So what this tells us is that the subcarrier with index 0 shall not be rotated. Is that what it says, sir? A. Yes, that’s what it says.” (Dkt. No. 530 at 165:13-23.)

Therefore, TQ Delta concludes that there was no legally sufficient evidence for the jury to find that claim 14 did not read on the VDSL2 standard even though the subcarrier index 0 is not rotated. (*Id.*)

CommScope first responds that Dr. Madisetti failed to prove that the VDSL2 standard computed a phase shift for “each carrier signal” as required by claim element 14[b]. (Dkt. No. 549 at 3.) For this element, Dr. Madisetti relied on Table 12-70 of the standard, which says that each “constellation point” or “phase characteristic” (i.e., the “X, Y” pair) “of each subcarrier shall be pseudo-randomly rotated by $0, \pi/2, \pi$, or $3\pi/2$ depending on the value of a 2-bit pseudo-random number”:

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14[h] computing a phase shift for each carrier signal based on the value associated with that carrier signal

“computing a phase shift for each carrier signal”.
 “computing the amount by which a phase is adjusted for each carrier signal” [Cour’s construction]

12.3.6.2 Quadrant scrambler
 The constellation point of each subcarrier shall be pseudo-randomly rotated by $0, \pi/2, \pi$ or $3\pi/2$ depending on the value of a 2-bit pseudo-random number. The subcarrier with index 0 (DC) shall not be rotated. The rotation shall be implemented by transforming the (X, Y) coordinates of the constellation point as shown in Table 12-70, where X and Y are the coordinates before scrambling:

Table 12-70 – Pseudo-random transformation

d_{n-1}, d_n	Angle of rotation	Final coordinates
0 0	0	(X, Y)
0 1	$\pi/2$	(-Y, X)
1 1	π	(-X, -Y)
1 0	$3\pi/2$	(Y, -X)

EX 34: G.993.2 (12/2011) at 263

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(*Id.* at 4, quoting Tr. Ex. 34 at TQD_TX00153996) (emphasis added).

Dr. Madisetti testified that the “first column represents the value shown in green, and you are computing based on that value an angle of rotation which is 0[,] 90, 180, or 270, shown in yellow.” (*Id.*, quoting Dkt. No. 530 at 126:3–15.) Section 12.3.6.2 states that “coordinates of the constellation point as shown in Table 12-70, where X and Y are the coordinates before

scrambling.” (*Id.*, quoting Tr. Ex. 34 at TQD_TX00153996.) CommScope argues this means that the first row displaying a final coordinate of “X, Y” has no “phase shift” computed. (*Id.*) According to CommScope, element 14[b] requires more than adding a zero angle of rotation and having “the exact same value”; rather, there must be an *adjustment* in the final coordinates (the phase characteristics). (*Id.* at 4–5.)

Next, CommScope argues that TQ Delta failed to show that the phase shift computed for each respective carrier signal was combined with the phase characteristic of that carrier signal as required by claim element 14[c]. (*Id.* at 6.) It points to the portion of Dr. Madisetti’s testimony where he admitted that the subcarrier zero shall not be rotated and concludes that “therefore Section 12.3.6.2 fails to combine the phase shift computed for each respective carrier signal.” (*Id.* at 7, citing Dkt. No. 530 at 165:13–23.) It reiterates that “Table 12-70 does not combine the phase shift computed for the carrier having the bit value of 0, 0 with the phase characteristic for that bit value because the original coordinate (X, Y) is the same as the final coordinate (X, Y).” (*Id.*) Moreover, it points out that TQ Delta never testified that the carrier having the bit value of 0, 0 was excluded from the plurality of carriers. (*Id.*)

Regarding claim element 14[b], TQ Delta responds that CommScope’s argument that a zero degree phase shift would not qualify as an “amount by which a phase is adjusted” contradicts the plain meaning of “amount,” as no reasonable juror could conclude that zero is not an amount. (Dkt. No. 556 at 3.) It further points out that the second column of Table 12-70 of the standard (*see supra*) lists a zero phase shift as “an angle of rotation.” (*Id.*, citing Dkt. No. 530 at 126:5–15.) TQ Delta asserts that Dr. Madisetti identified that 0 degree phase shift as one of the phase shift amounts by which a carrier signal is adjusted. (*Id.*, citing Dkt. No. 530 at 126:5–15.) It concludes

that element 14[b] is met, including when one of the possible computed phase shift amounts is zero. (*Id.*)

With respect to claim element 14[c], TQ Delta argues that CommScope's argument contradicts the VDSL2 standard. (*Id.* at 5.) It notes that "[c]ontrary to CommScope's assertion, the VDSL2 standard requires adjusting the phase characteristic by the 'amount of rotation' listed in column 2 of Table 12-70, i.e., combining the computed phase shift with the phase characteristic, including when the bit value is (0,0)." (*Id.*) For that reason, it argues that CommScope's contention that Table 12-70 does not combine the phase shift computed for the carrier with the bit value of 0, 0 with the phase characteristic for that bit value does not comport with the standard. (*Id.*) TQ Delta additionally disputes CommScope's argument that TQ Delta never testified that the carrier having the bit value of 0, 0 was excluded from the plurality of carriers. (*Id.* at 5.) It asserts that Dr. Madisetti testified that the carrier signals identified in Table 12-68 are the claimed "plurality of carrier signals for modulating a bit stream, wherein each carrier signal has a phase characteristic associated with the bit stream," and that subcarrier zero is not one of them. (*Id.*, citing Dkt. No. 530 at 118:19-119:3, 119:23-120:7, 120:14-121:21, and 168:8-20.)

CommScope contends that TQ Delta's argument for claim 14 "hinges on its assertion that the plain meaning of 'amount' is so clear that 'no reasonable juror could conclude that zero is not an amount.'" (Dkt. No. 563 at 3.) It urges that whether zero is an amount is a "quintessential question of fact" that the Jury could, and properly did, answer in the negative. (*Id.*) Regarding element 14[b], it argues that the evidence demonstrated that a phase shift of zero is not an "amount by which a phase shift is adjusted," as required by the Court's construction of claim element 14[b]. (*Id.*) It notes that Section 12.3.6.2 unambiguously states that original "coordinates of the constellation point as shown in Table 12-70, where X and Y are the coordinates before

scrambling.” (*Id.*, citing Tr. Ex. 34 at TQD_TX00153996.) In CommScope’s view, this means that the first row, with a final coordinate of X, Y, has no phase shift computed (or “adjusted”)—the zero angle of rotation does not adjust the phase shift because the original X, Y coordinate remains the same. (*Id.* at 3–4.)

CommScope asserts that claim element 14[b] is also not met because the zero angle of rotation is not computed for “each carrier signal” as explained above, and “each carrier signal” is not combined because there is no phase shift for bit value 0, 0. (*Id.* at 4.) It additionally points out that TQ Delta never stated that the subcarrier zero is not one of the plurality of carrier signals; TQ Delta only stated that his infringement theory did not rely on that subcarrier. (*Id.*, citing Dkt. No. 530 at 168:12-16.)

ii. Court Analysis

As a preliminary matter, the Court clarifies the proper inquiry. The Fifth Circuit has held that a judgment as a matter of law should be granted only “[i]f the evidence at trial points so strongly and overwhelmingly in the movant’s favor that reasonable jurors could not reach a contrary conclusion.” *Omnitech Int’l, Inc. v. Clorox Co.*, 11 F.3d 1316, 1323 (5th Cir. 1994) (citations omitted). However, “when the party moving for a directed verdict has such a burden, the evidence to support the granting of the motion must be so one-sided as to be of over-whelming effect.” *Grey v. First Nat’l Bank in Dall.*, 393 F.2d 371, 380 (5th Cir. 1968). *See also, Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356, 1364 (Fed. Cir. 2018) (citing *Grey*, 393 F.2d at 380). Since the Jury has found that TQ Delta failed to carry its burden on infringement, TQ Delta must now show that the evidence that supports granting the Motion is “so one-sided as to be of overwhelming effect.” *Grey*, 393 F.2d at 380. TQ Delta has not done so.

TQ Delta has failed to point to evidence of overwhelming effect showing that the Jury must have found infringement. Mere evidence does not amount to overwhelming evidence. One expert who testifies and is cross-examined does not overwhelm, especially where the cross-examination is done skillfully. Thus, after a fulsome review of the record, the Court finds that this issue is not “so one-sided” as to justify overturning the Jury’s verdict. *Grey*, 393 F.2d at 380. The evidence is simply not so overwhelming that it required the Jury to find standard essentiality of claim 14 of the ’008 Patent. Since TQ Delta’s only infringement theory for the ’008 Patent relied on establishing its standard essentiality, the Court need not reach the issue of whether the accused products practiced the standard.

C. A New Trial Is Not Warranted

In the alternative, TQ Delta argues that the Court should grant a new trial on the issue of the infringement of the ’008 Patent. (Dkt. No. 539 at 14.) TQ Delta contends that the Jury was instructed that the parties stipulated to the standard essentiality of the ’008 Patent, then turned around and argued to the jury that the VDSL Standard was different from claim 14. (*Id.*, citing 3/24/23 Tr. at 107:17–19.) In TQ Delta’s view, this made the non-infringement verdict “against the weight of the evidence, based on unfair and irrelevant argument, and plainly unjust.” (*Id.* at 15.) CommScope responds that the Jury had a legally sufficient evidentiary basis to find that the accused products do not infringe claim elements 14[b] and 14[c] of the ’008 Patent. (Dkt. No. 549 at 11.) As a result, CommScope argues the Motion for New Trial should be denied. (*Id.* at 11–12.)

The Court agrees with CommScope—as discussed above, the Jury had legally sufficient evidence to conclude that the accused products did not infringe claim 14 of the ’008 Patent. The Court further notes that TQ Delta failed to object to the “unfair and irrelevant” closing argument that it now cites to. (*See* Dkt. No. 534 at 107:1–25.)

IV. CONCLUSION

Having considered the Motion, the Court finds that it should be and hereby is **DENIED**. The parties are directed to jointly prepare a redacted version of this Order for public viewing and to file the same on the Court's docket as an attachment to a Notice of Redaction within five (5) business days of this Order.

So ORDERED and SIGNED this 15th day of February, 2024.



RODNEY GILSTRAP
UNITED STATES DISTRICT JUDGE